

Figure 1a

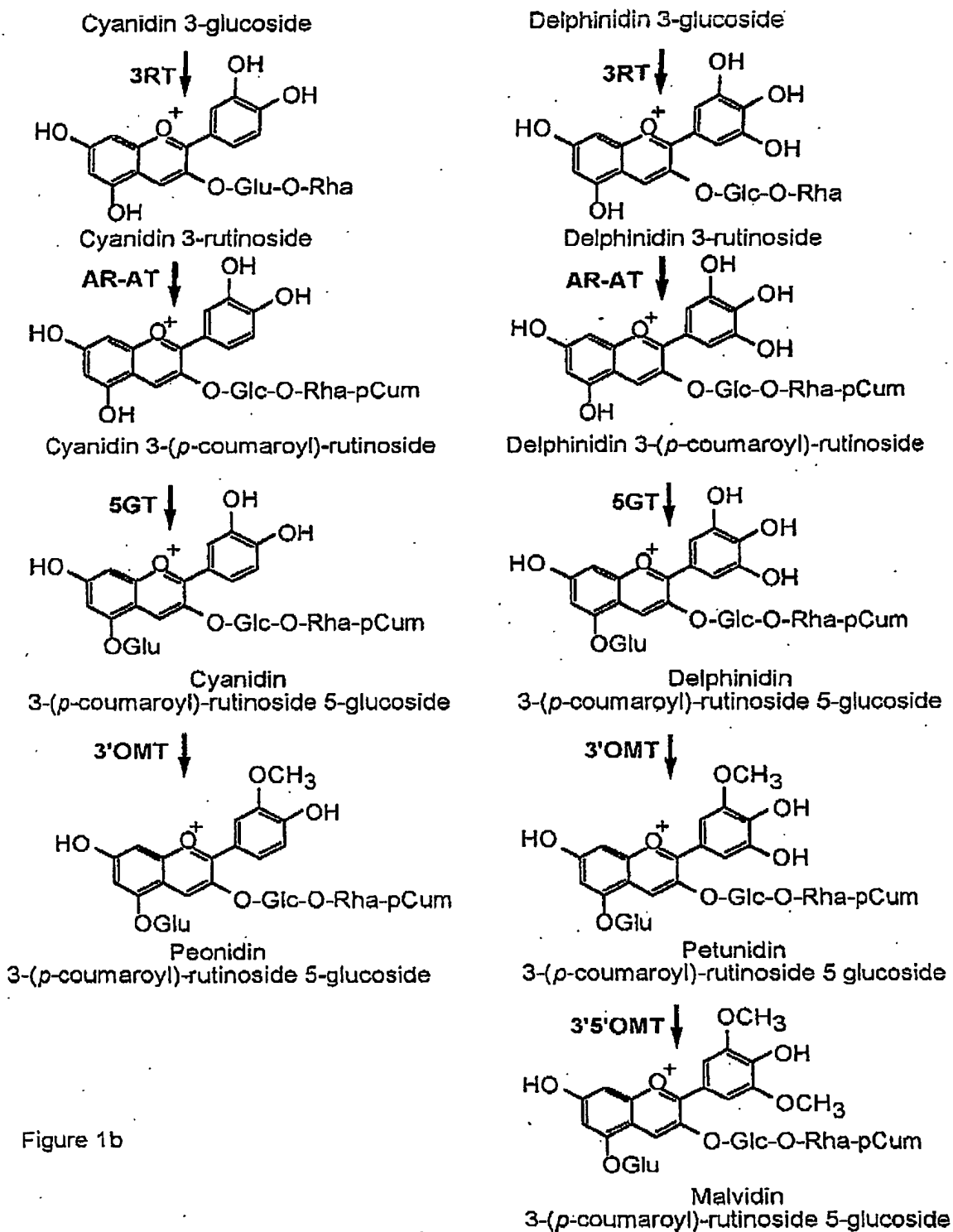
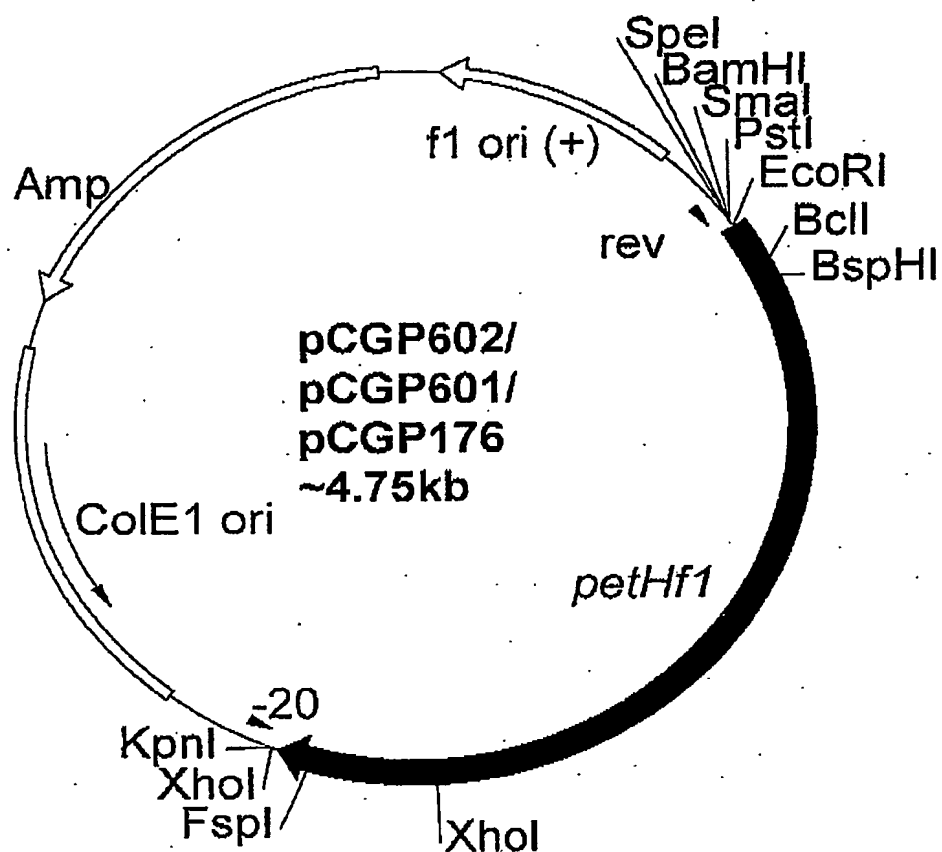


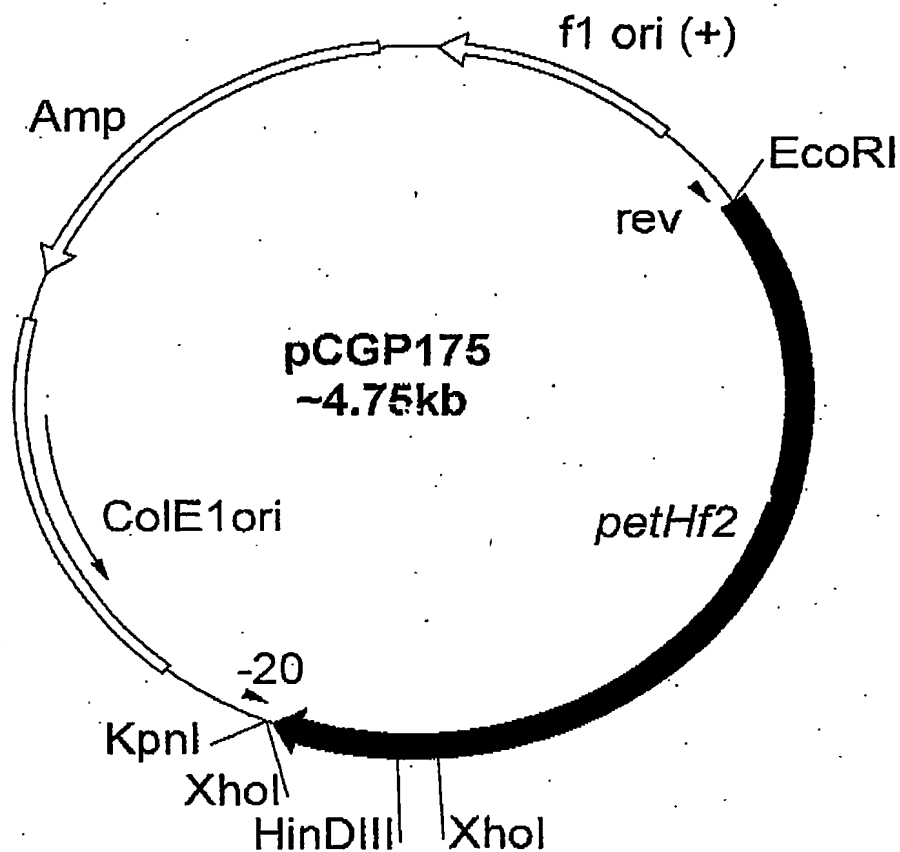
Figure 1b



Replicon: pBluescript SK (+) vector 2.95kb

Insert: ~1.8kb petunia F3'5'H *petHf1* cDNA
homologs from *P. hybrida* cv. OGB

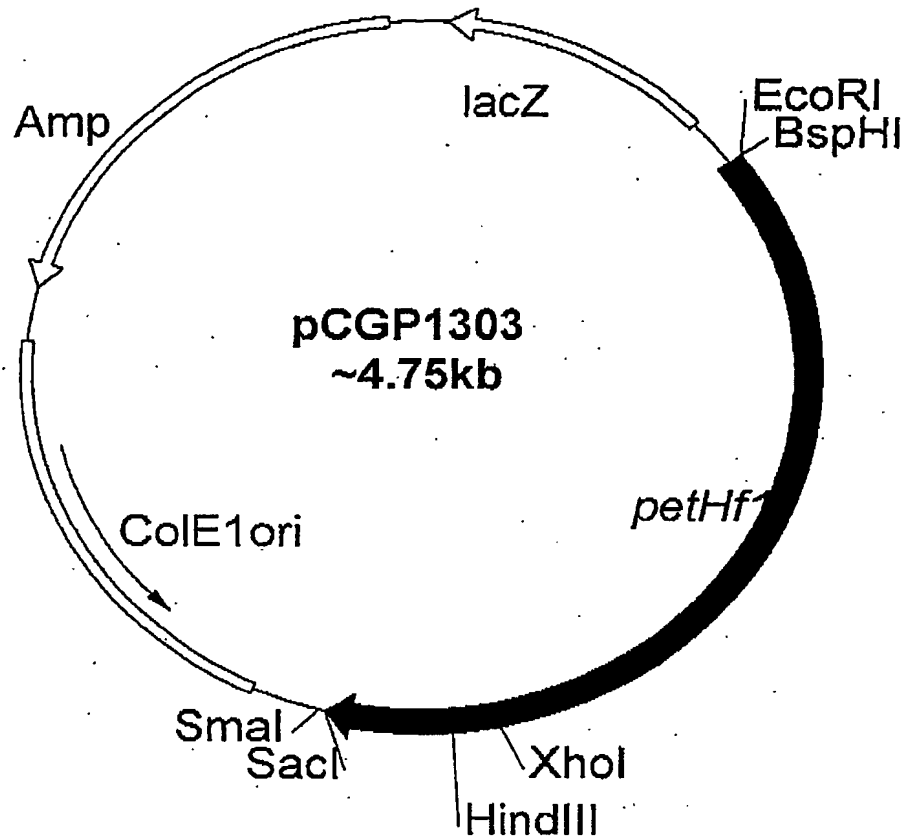
Figure 2



Replicon: pBluescript SK (+) vector 2.95kb

Insert: ~1.8kb petunia F3'5'H *petHf2* cDNA
from *P. hybrida* cv. OGB

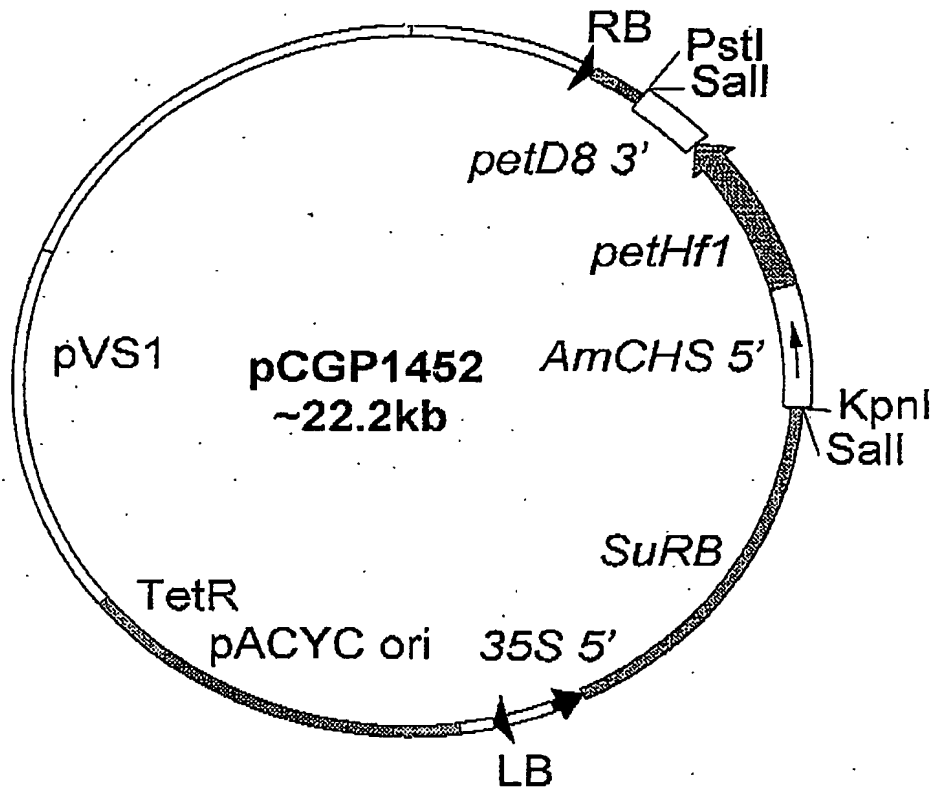
Figure 3



Replicon: ~2.7kb EcoRI (blunted) pUC19 vector

Insert: ~1.6kb BspHI (blunted)/FspI fragment containing petunia F3'5'H *petHf1* cDNA from pCGP601

Figure 4



Replicon: ~18.7kb SmaI pWTT2132 vector

Insert: ~3.5kb PstI (blunted) fragment
containing *AmCHS* 5': *petHf1*: *petD8* 3' gene
from pCGP485

Figure 5

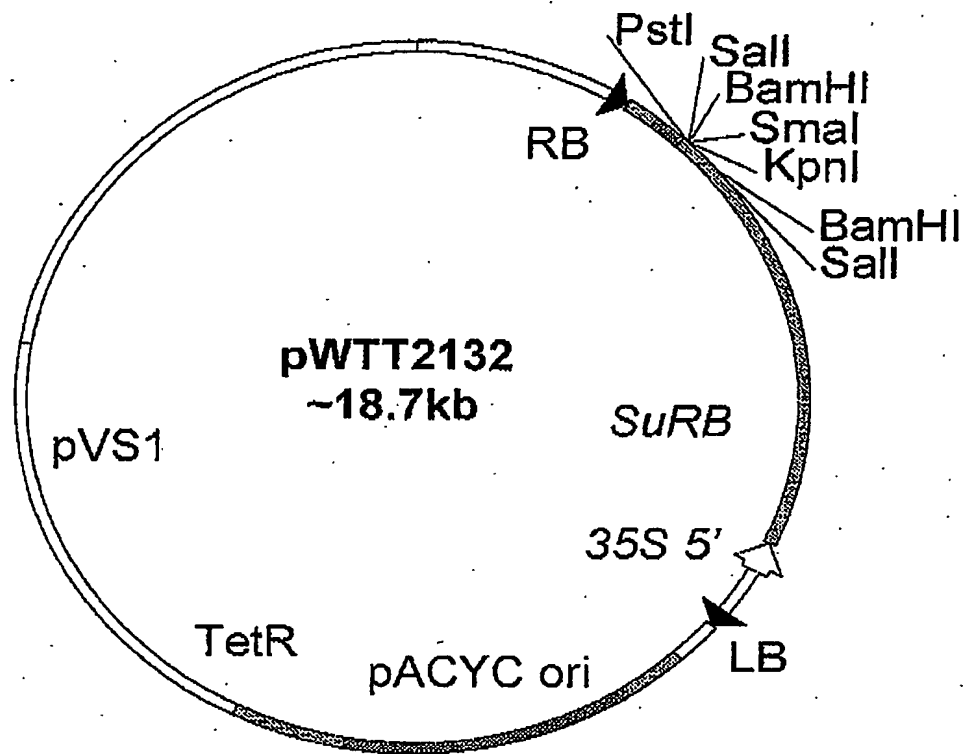
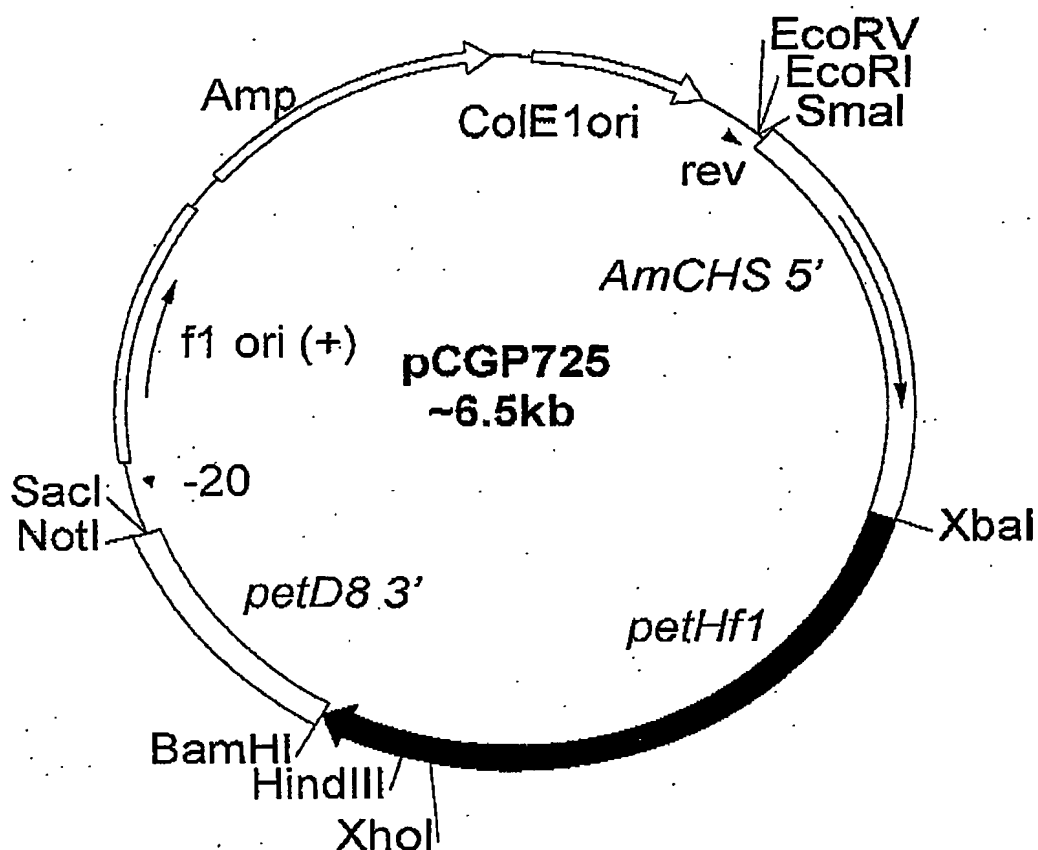


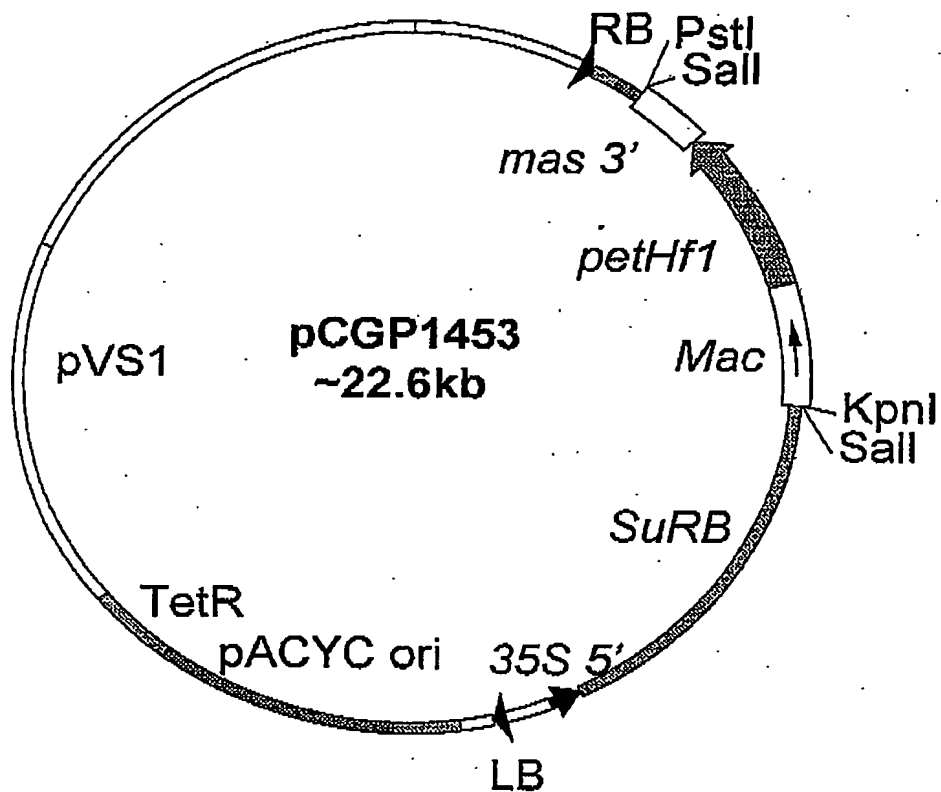
Figure 6



Replicon: 2.95kb (BamHI/XbaI) blunted vector fragment of pBluescript II KS (+).

Insert: ~3.5kb PstI (blunted) fragment containing *AmCHS* 5': *petHf1*: *petD8* 3' gene from pCGP483

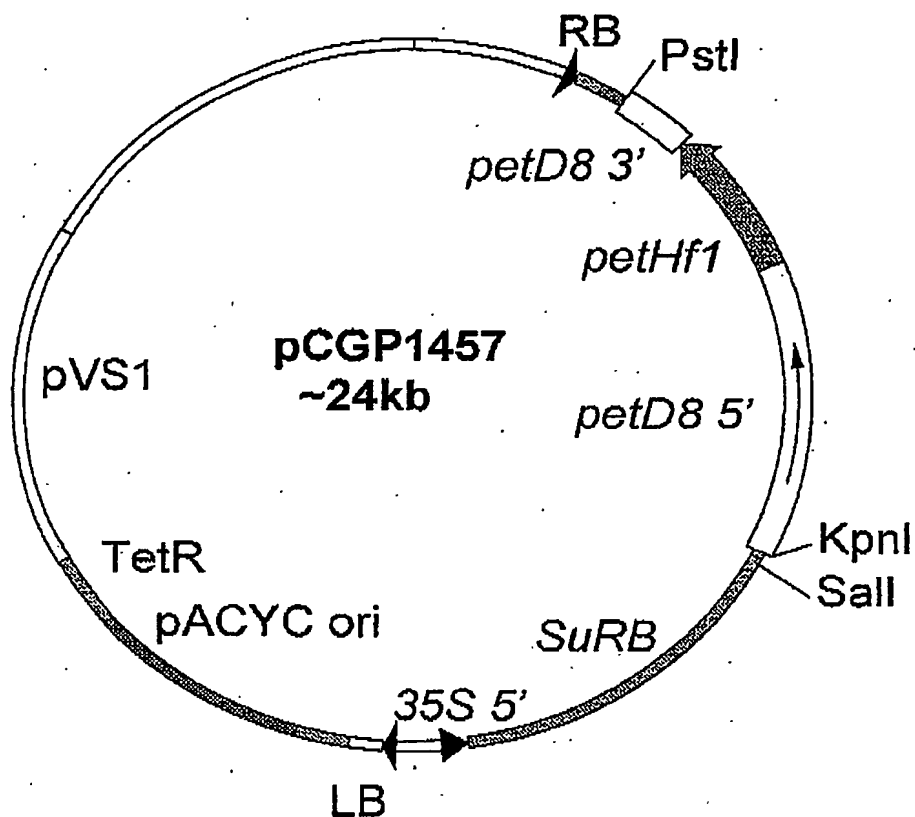
Figure 7



Replicon: ~18.7kb SmaI pWTT2132 vector

Insert: ~3.9kb PstI (blunted) fragment
containing *Mac: petHf1: mas 3'* gene from
pCGP628

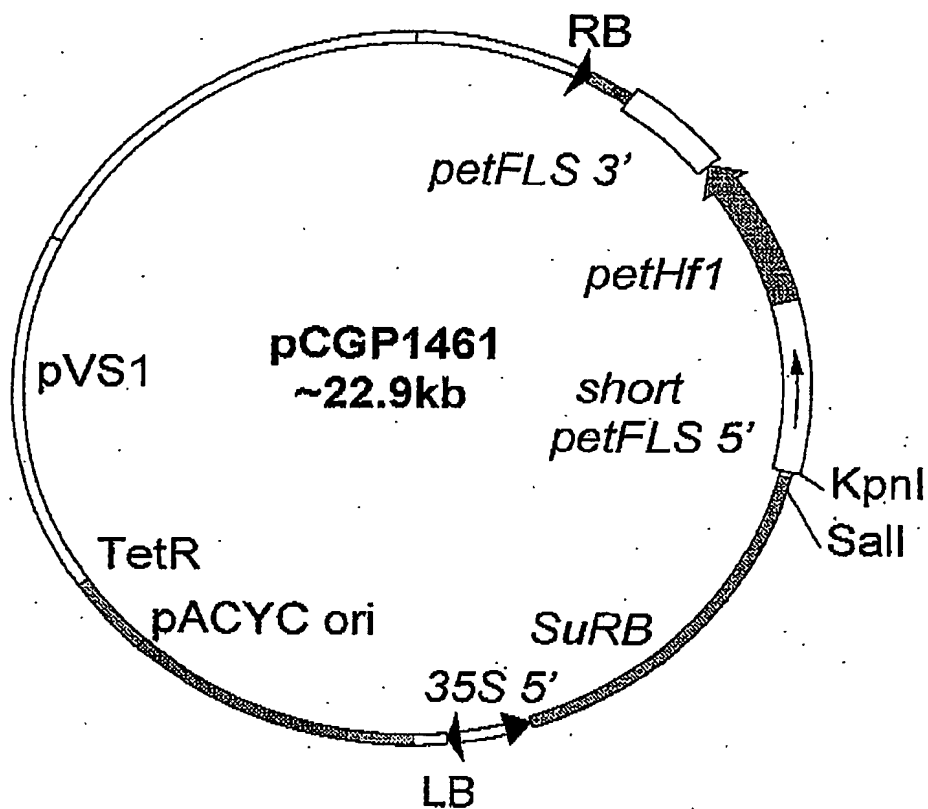
Figure 8



Replicon: ~18.7kb SmaI/PstI pWTT2132 vector

Insert: ~5.3kb XbaI (blunted)/PstI fragment containing *petD8* 5': *petHf1*: *petD8* 3' gene from pCGP1107

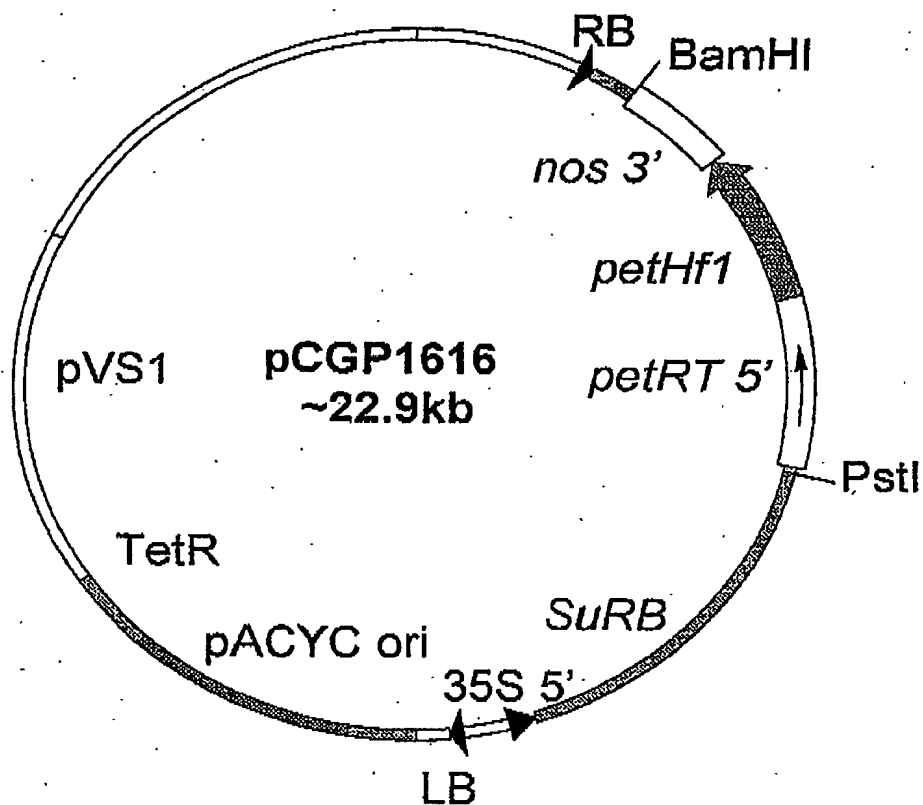
Figure 9



Replicon: ~18.7kb PstI (blunted)/KpnI
pWTT2132 vector

Insert: ~4.35kb SacI (blunted)/KpnI fragment
containing *shortFLS 5'*: *petHf1*: *petFLS 3'* gene
from pCGP497

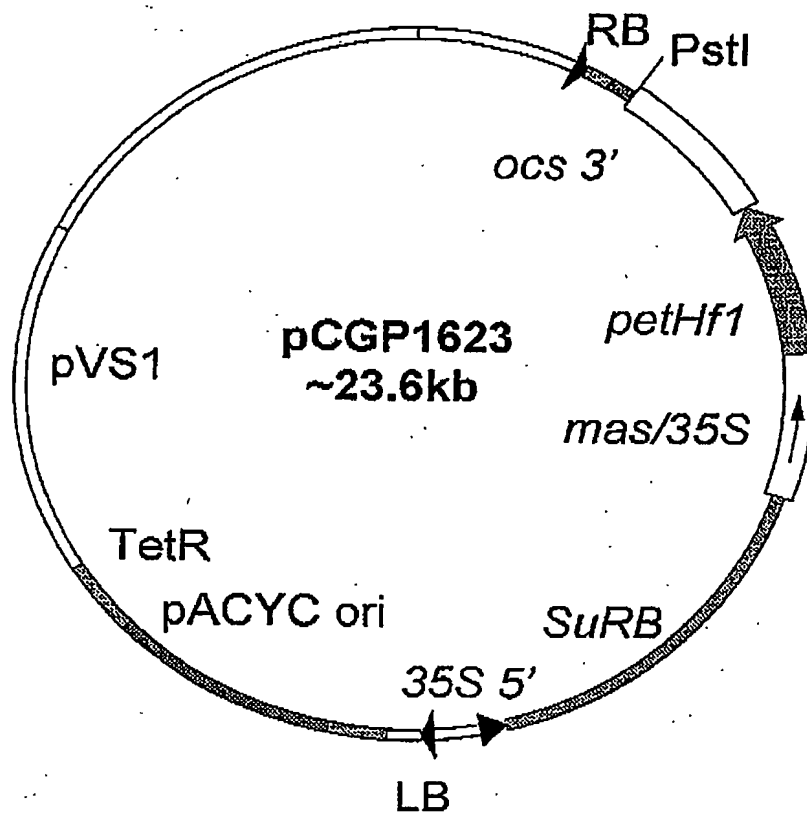
Figure 10



Replicon: ~18.7kb PstI/BamHI pWTT2132 vector

Insert: ~3kb PstI/BamHI fragment containing *petRT5'*: *petHf1*: *nos 3'* gene from pCGP846

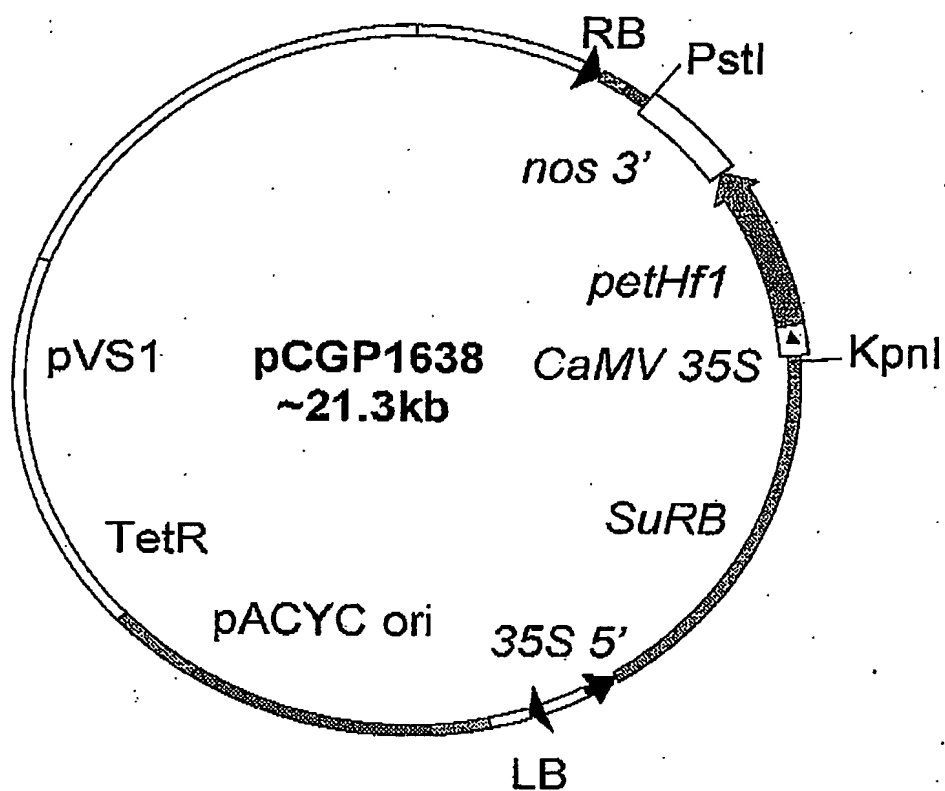
Figure 11



Replicon: ~18.7kb Sall pWTT2132 vector

Insert: ~4.9kb XhoI fragment containing
mas/35S: petHf1: ocs 3' gene from pCGP1619

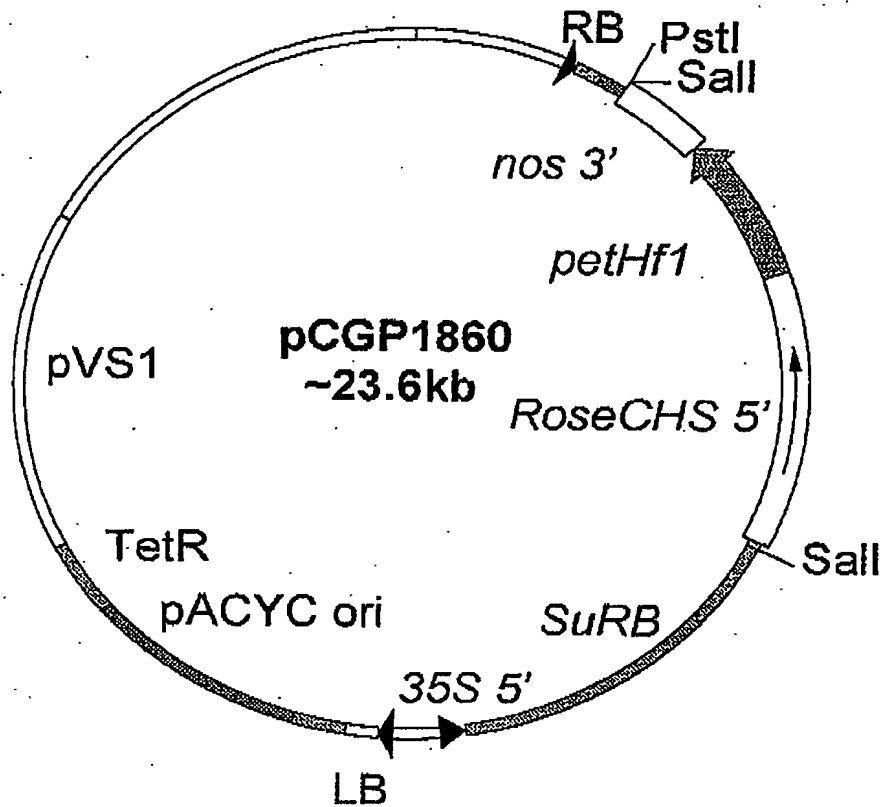
Figure 12



Replicon: ~18.7kb *SmaI* pWTT2132 vector

Insert: ~2.6kb (*PstI*/*EcoRI*) blunted fragment containing *CaMV.35S: petHf1: nos 3'* gene from pCGP1636

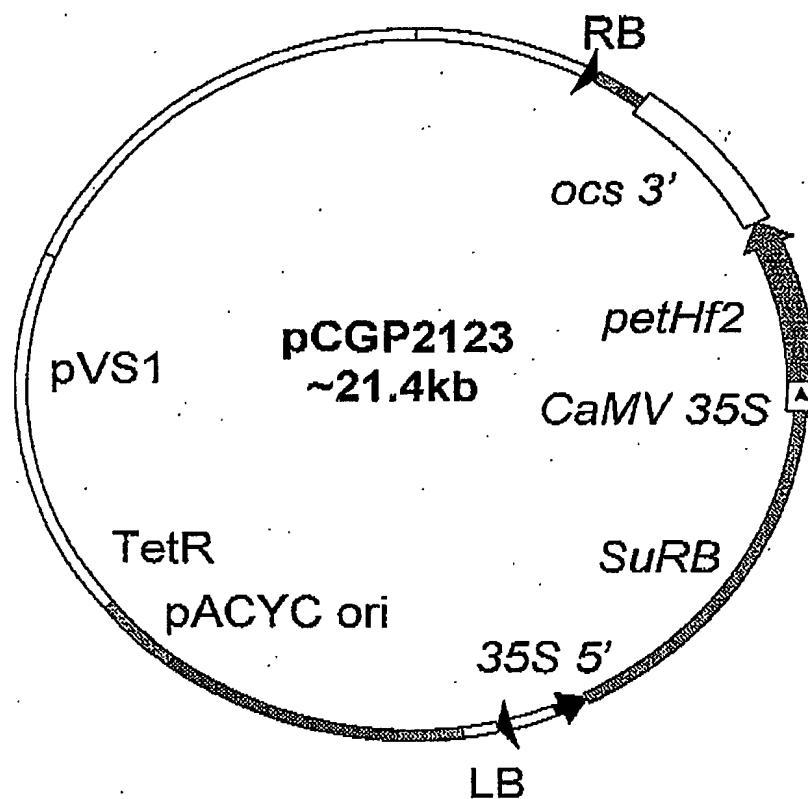
Figure 13



Replicon: ~18.7kb BamHI pWTT2132 vector

Insert: ~4.9kb BglII fragment from containing *RoseCHS 5':petHf1:nos 3'* gene from pCGP200

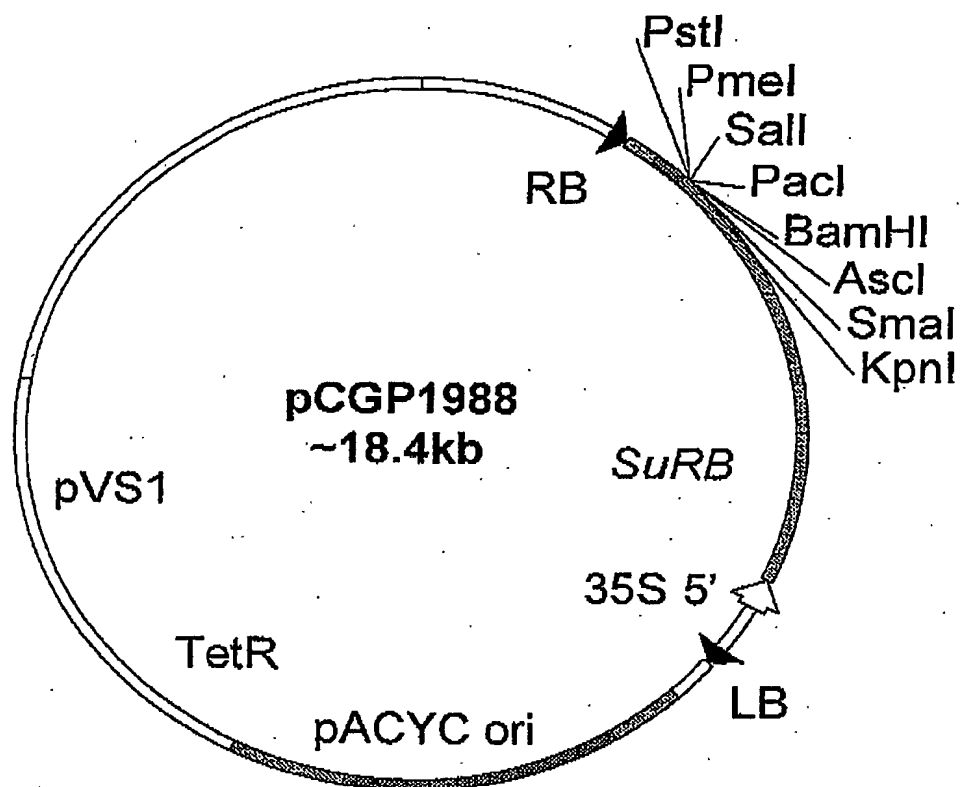
Figure 14



Replicon: ~18.4kb Asp718 (blunted)
pCGP1988 vector

Insert: ~3.7kb (Asp718/XbaI) blunted
fragment containing *CaMV 35S: petHf2:*
ocs 3' gene from pCGP2109

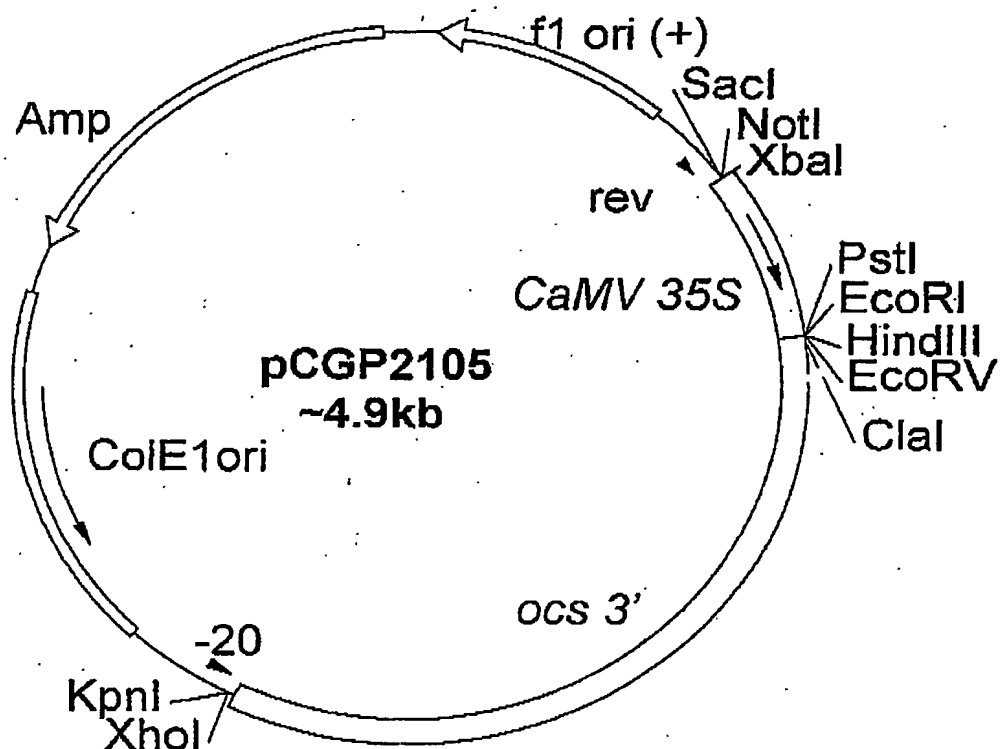
Figure 15



Replicon: ~18.4kb Sall (blunted)/PstI vector fragment from pWTT2132

Insert: ~66bp EcoRI (blunted)/ PstI fragment containing multi-cloning site from pNEB193

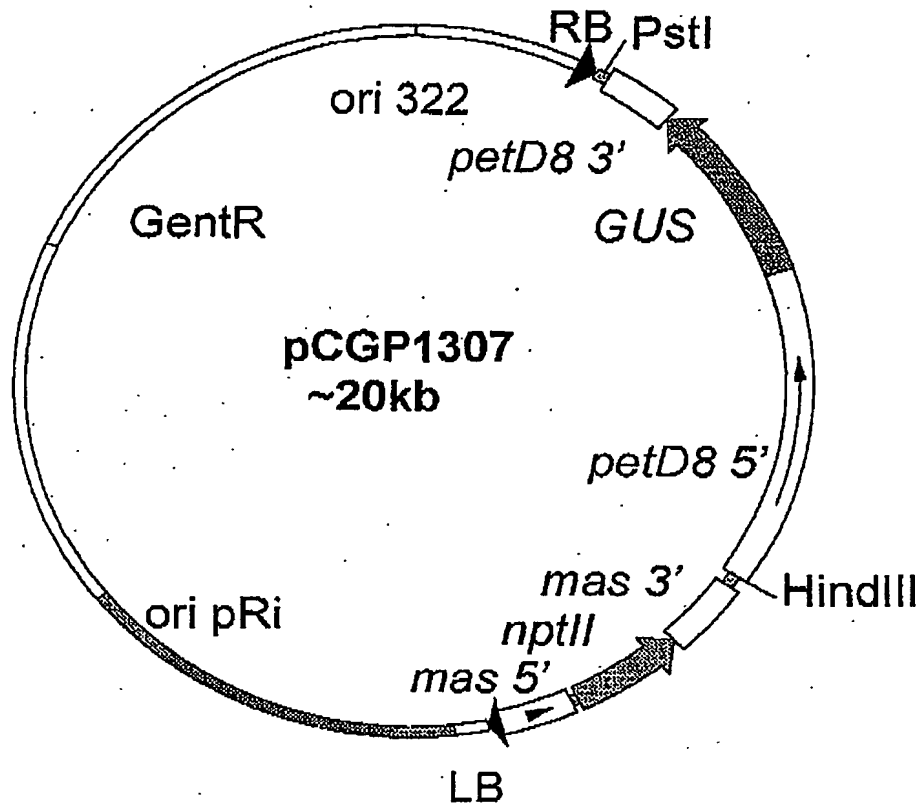
Figure 16



Replicon: ~3.3 kb HincII/XhoI vector fragment from pCGP2000 (containing *CaMV* 35S promoter fragment in pBluescript SK)

Insert: ~1.6kb EcoRI (blunted)/ XhoI ocs 3' fragment from pKIWI101

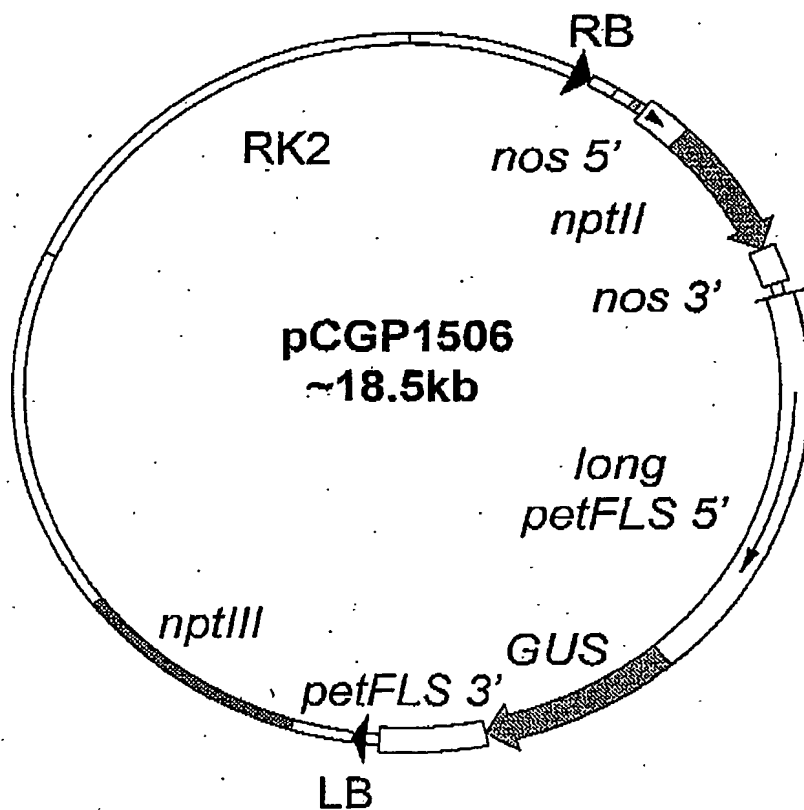
Figure 17.



Replicon: ~15kb HindIII/PstI pCGN1548 vector

Insert: ~5.3kb HindIII/PstI fragment containing *petD8* 5': *GUS*: *petD8* 3' gene from pCGP1106

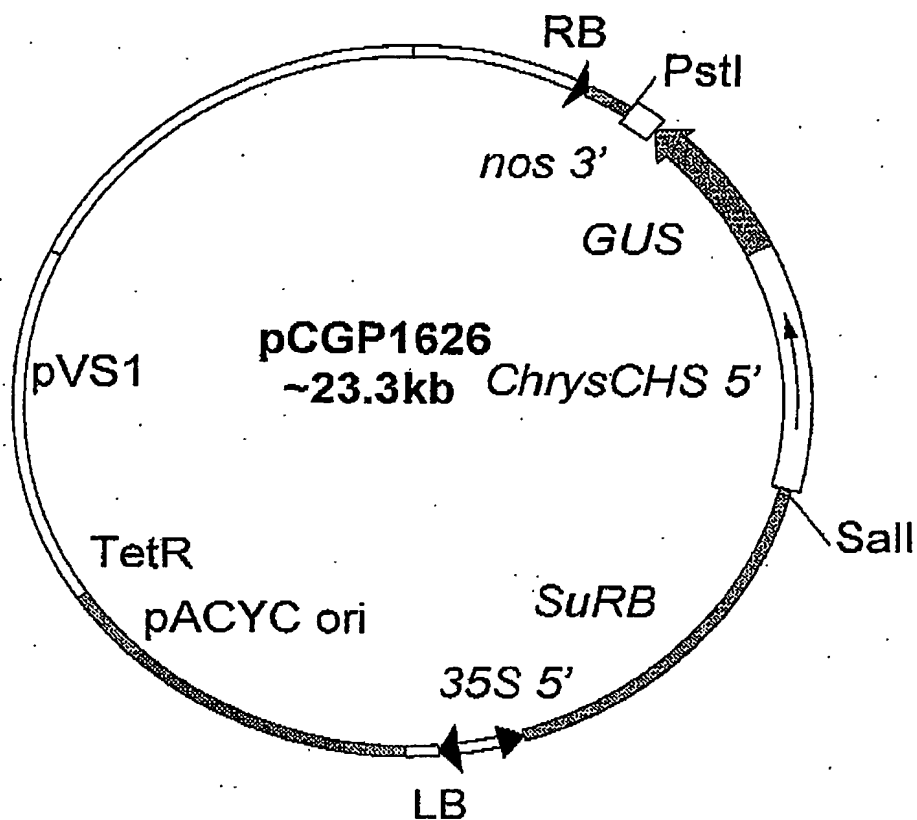
Figure 18



Replicon: ~11.8kb BamHI (GA-filled)/SacI
pBIN19 vector

Insert: ~6.7kb XhoI (TC-filled)/SacI
fragment containing *longpetFLS* 5': *GUS*:
petFLS 3' gene from pCGP496

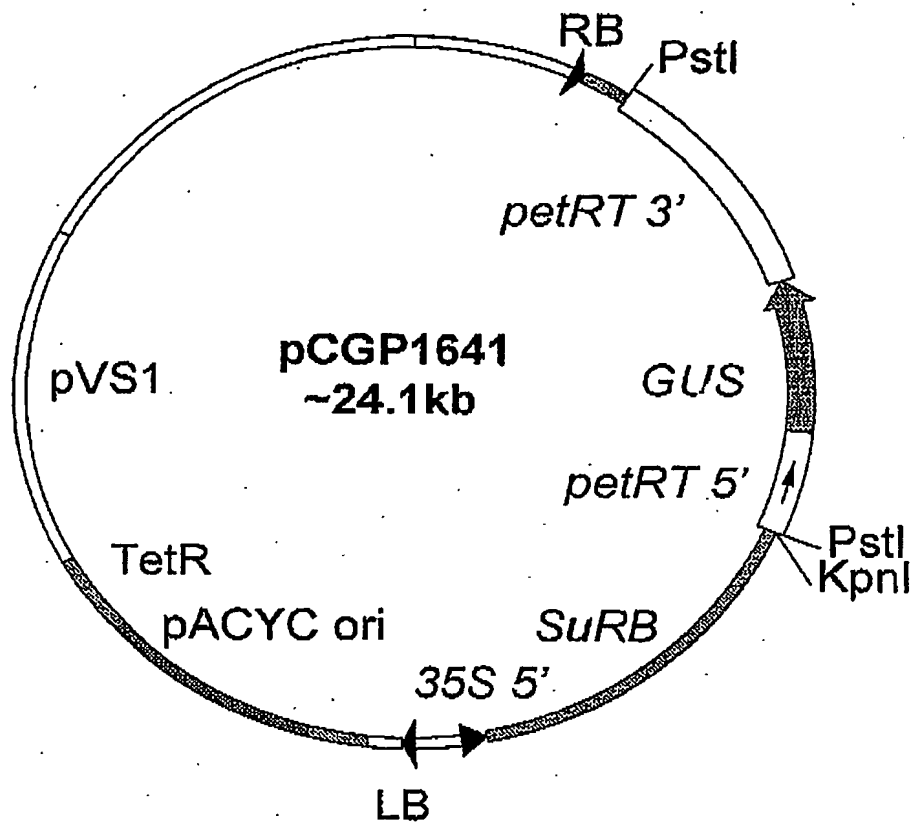
Figure 19



Replicon: ~18.7kb PstI/BamHI pWTT2132 vector

Insert: ~4.6kb PstI/BglII fragment containing *ChrysCHS* 5': *GUS*: *nos* 3' gene from pCGP1622

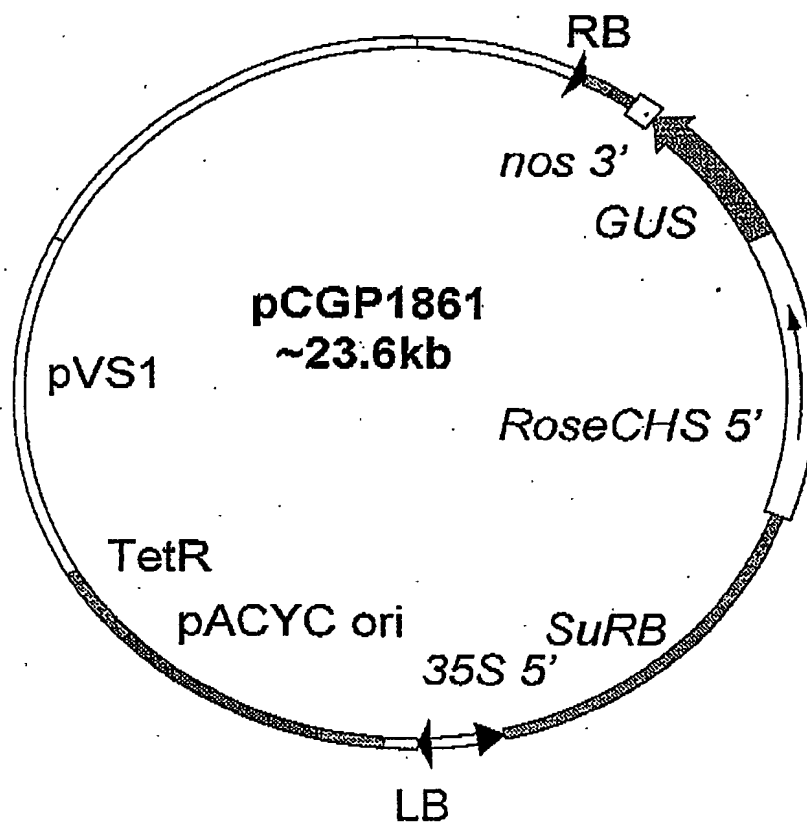
Figure 20



Replicon: ~18.7kb PstI pWTT2132 vector

Insert: ~5.4kb PstI fragment containing
petRT 5'; *GUS*; *petRT 3'* gene from
pCGP1628

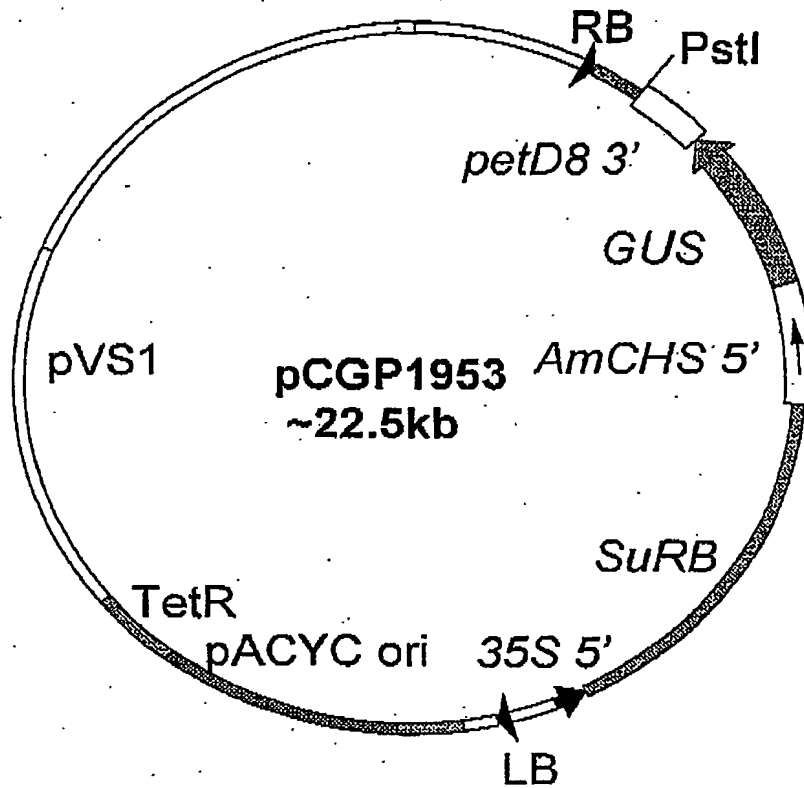
Figure 21



Replicon: ~18.7kb BamHI pWTT2132 vector

Insert: ~5kb BglII fragment containing *RoseCHS 5'*: *GUS*: *nos 3'* gene from pCGP197

Figure 22



Replicon: ~18.7kb Asp718 (blunted)
pWTT2132 vector

Insert: ~3.8kb (EagI/PstI) blunted
fragment containing *AmCHS* 5': *GUS*:
petD8 3' gene from pCGP1952

Figure 23

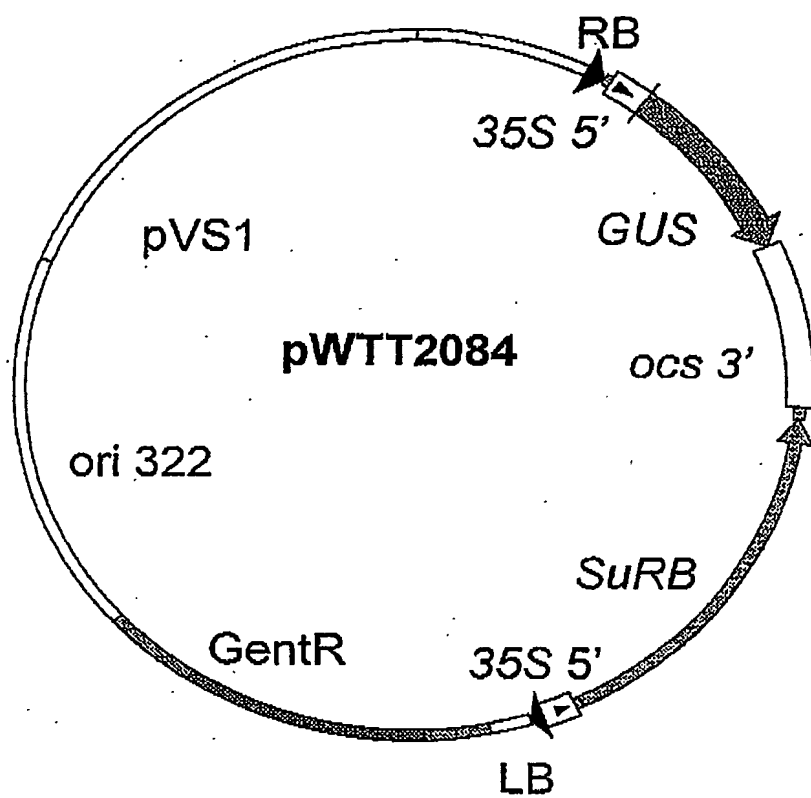
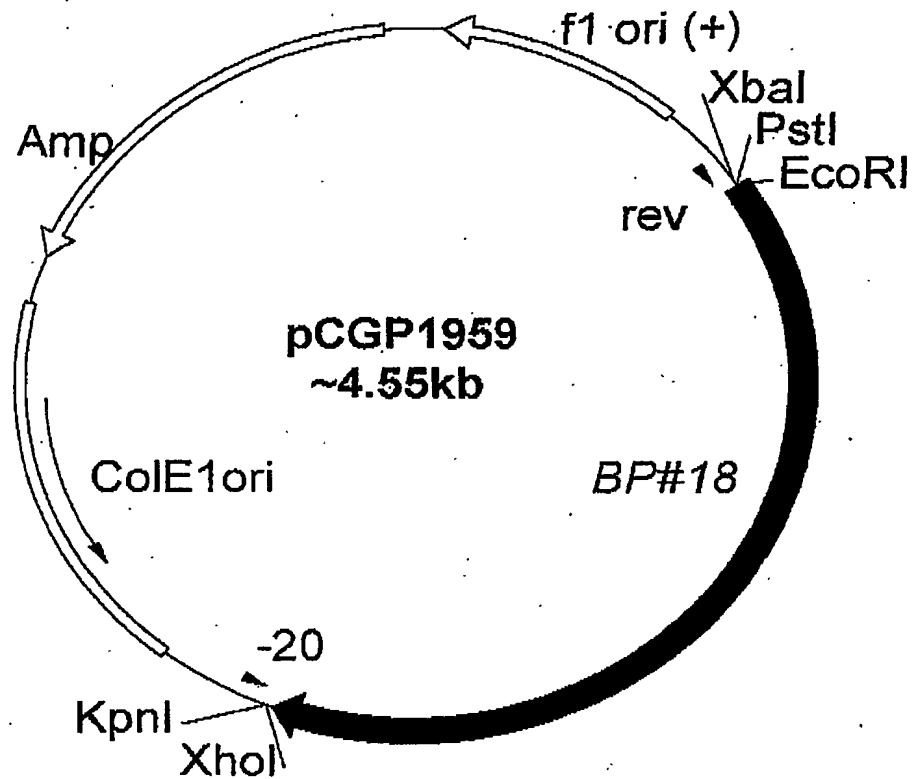


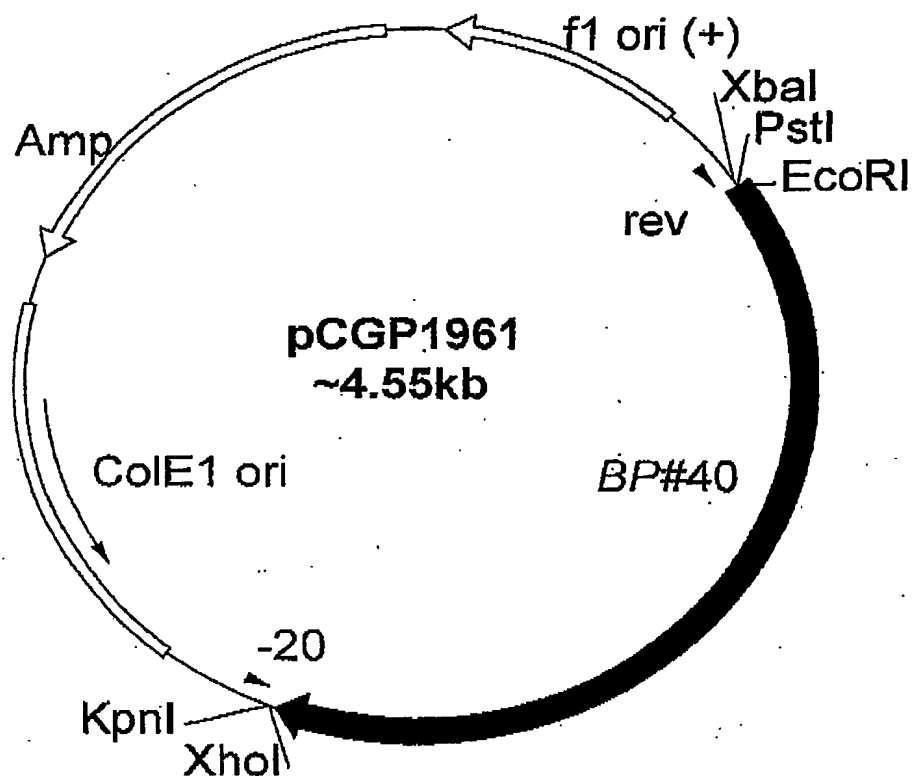
Figure 24



Replicon: pBluescript SK II (+) vector 2.95kb

Insert: ~1.6kb *pansy* F3'5'H BP#18 cDNA from *Viola* spp. cv. Black Pansy

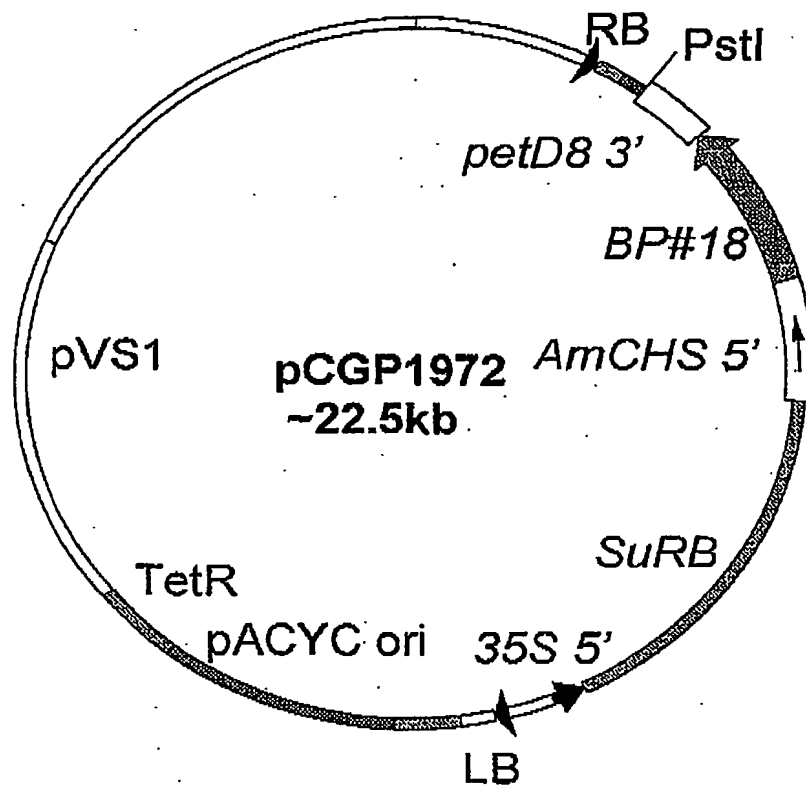
Figure 25



Replicon: pBluescript SK II (+) vector
2.95kb

Insert: ~1.6kb *pansy* F3'5'H BP#40 cDNA
from *Viola* spp. cv. Black Pansy

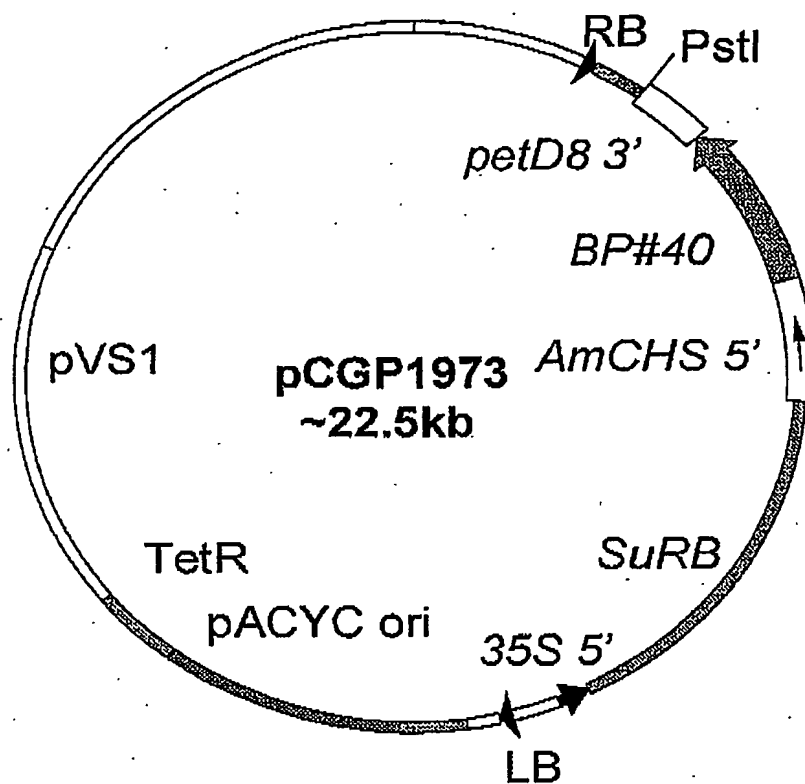
Figure 26



Replicon: ~18.7kb Asp718 (blunted)
pWTT2132 vector

Insert: ~3.8kb NotI (blunted)/ EcoRV
fragment containing *AmCHS* 5': *BP#18*:
petD8 3' gene from pCGP1970

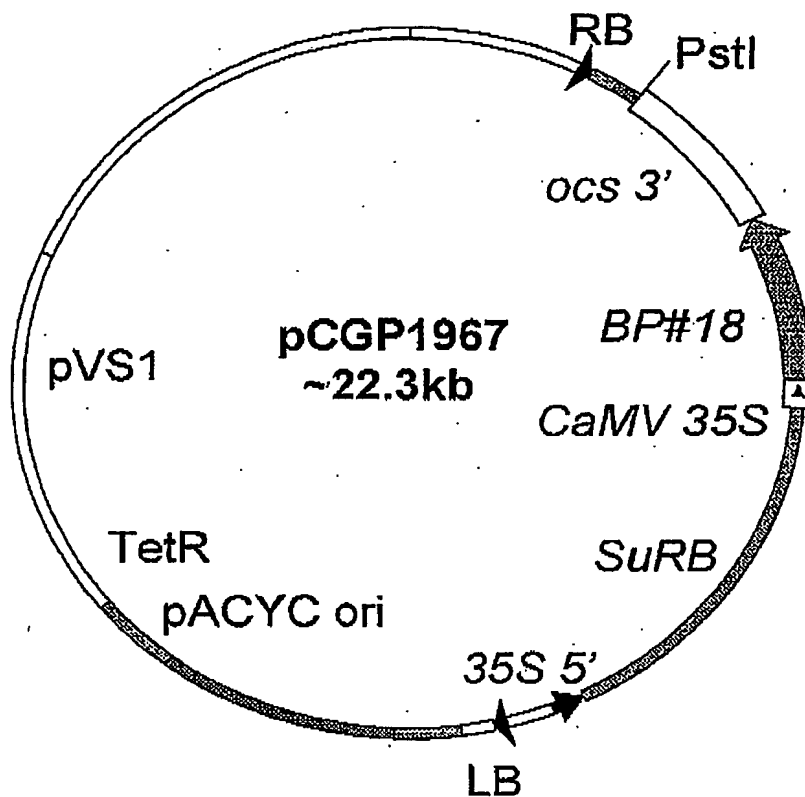
Figure 27



Replicon: ~18.7kb Asp718 (blunted)
pWTT2132 vector

Insert: ~3.8kb NotI (blunted)/ EcoRV
fragment containing *AmCHS* 5': BP#40:
petD8 3' gene from pCGP1971

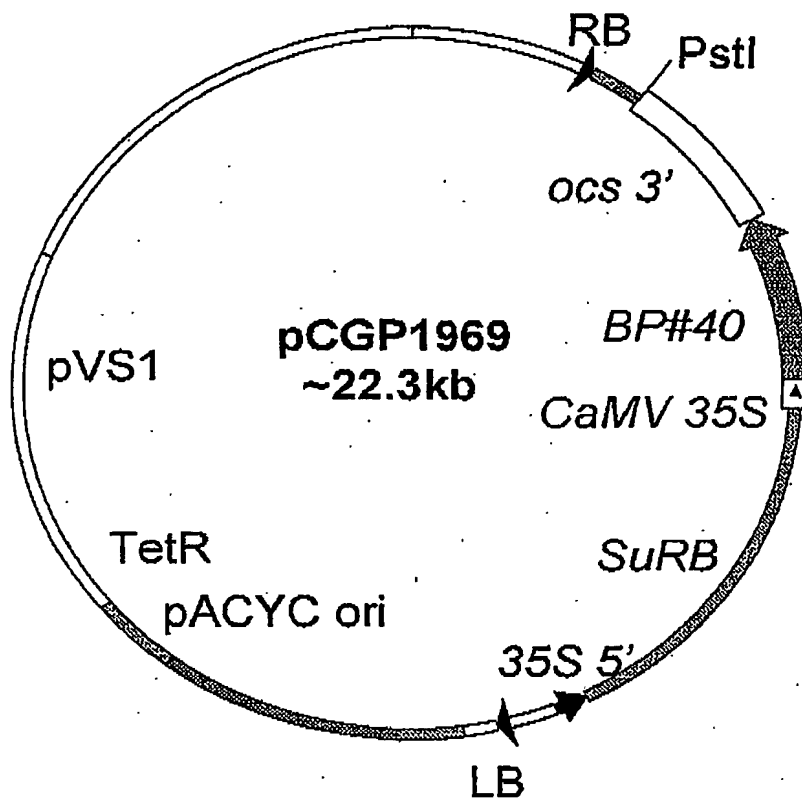
Figure 28



Replicon: ~18.7kb Asp718 (blunted)
pWTT2132 vector

Insert: ~3.6kb (XhoI /XbaI) blunted
fragment containing *CaMV 35S*: *BP#18*:
ocs 3' gene from pCGP1965

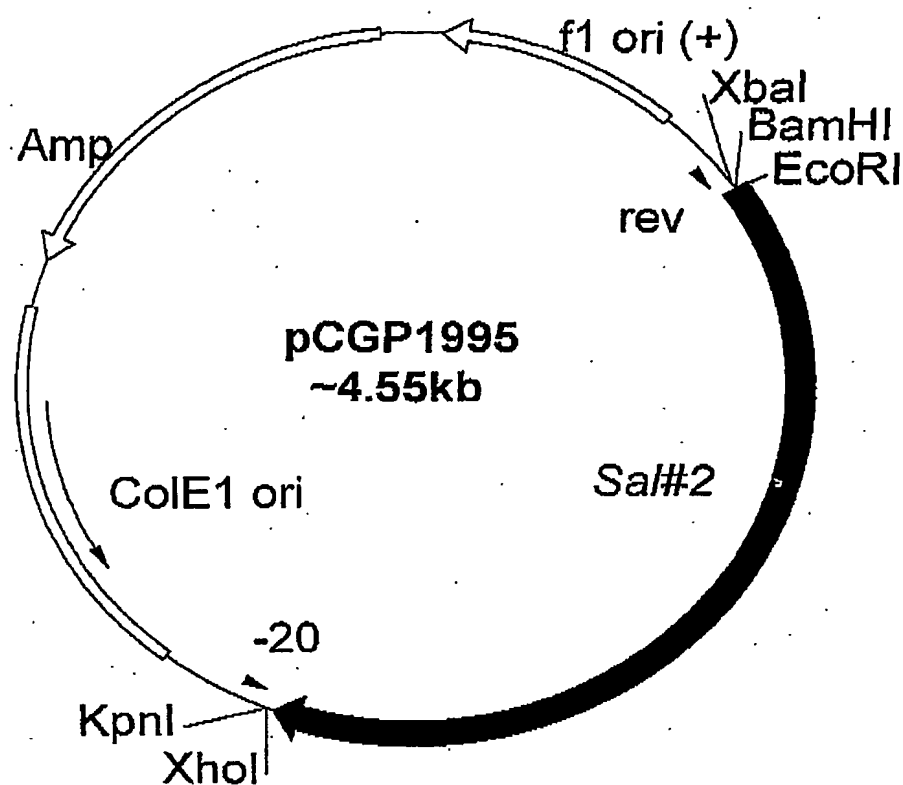
Figure 29



Replicon: ~18.7kb Asp718 (blunted)
pWTT2132 vector

Insert: ~3.6kb (XhoI/XbaI) blunted
fragment containing *CaMV 35S*: BP#40:
ocs 3' gene from pCGP1966

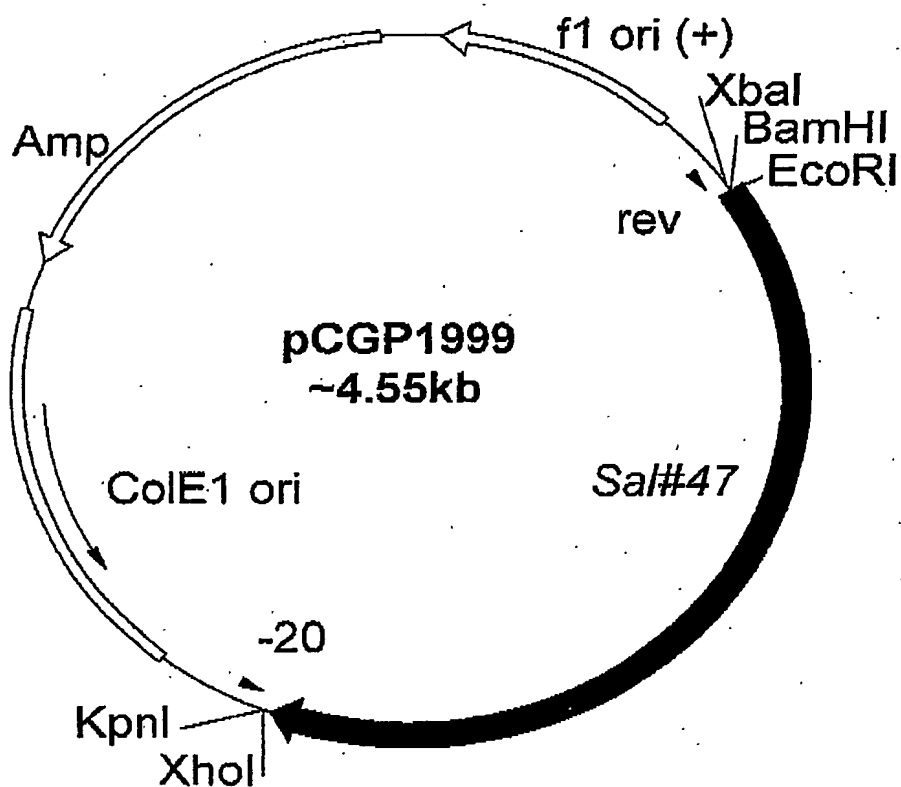
Figure 30



Replicon: pBluescript SK II (+) vector 2.95kb

Insert: ~1.6kb *F3'5'H* Sal#2 cDNA from *Salvia spp.*

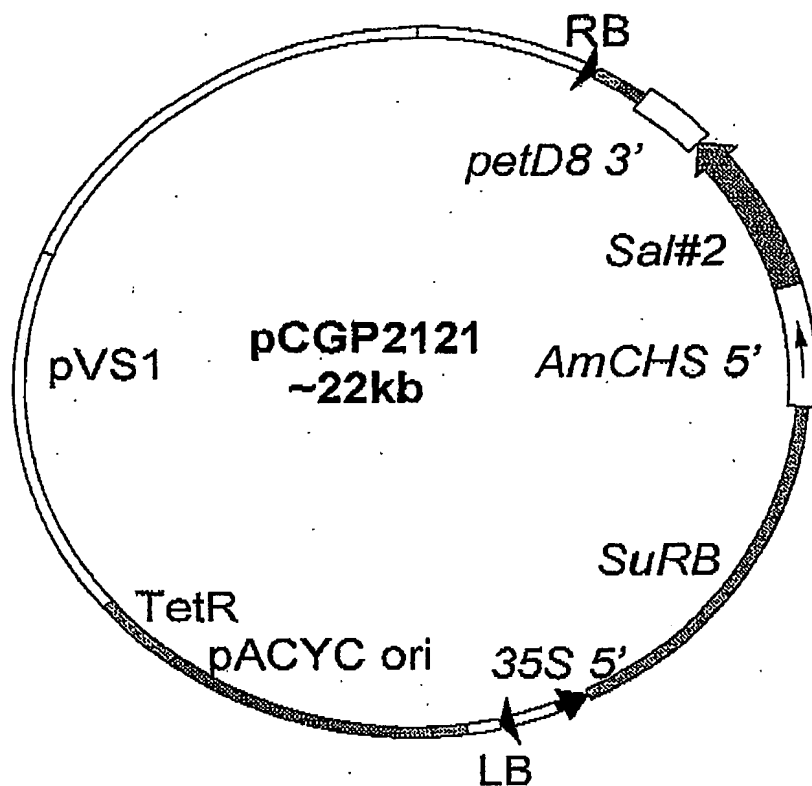
Figure 31



Replicon: pBluescript SK II (+) vector
2.95kb

Insert: ~1.6kb *F3'5'H* *Sal#47* cDNA from
Salvia spp.

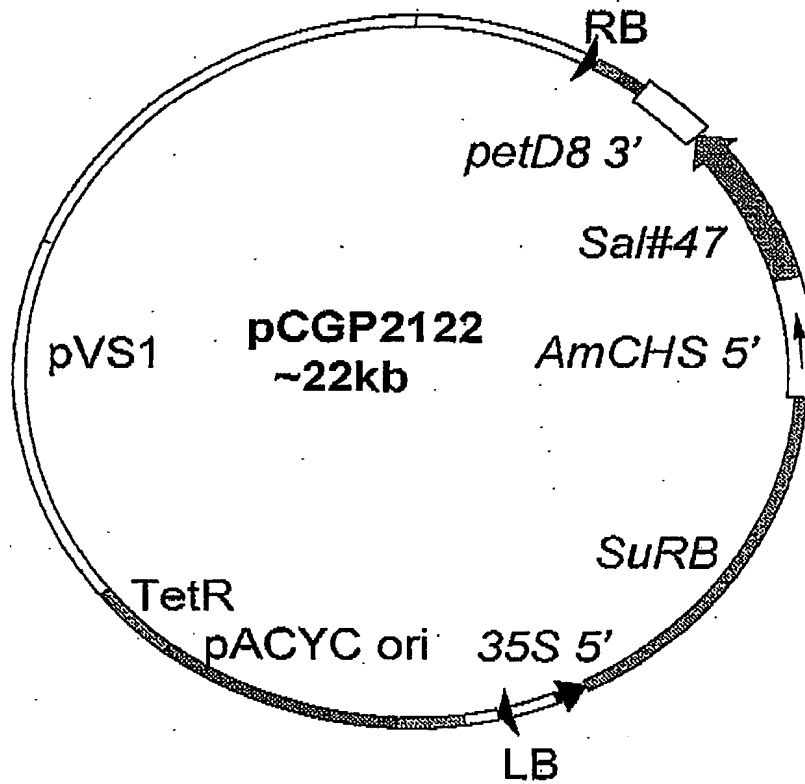
Figure 32



Replicon: ~18.4kb Asp718 (blunted)
pCGP1988 vector

Insert: ~3.6kb NotI (blunted)/ EcoRV
fragment containing *AmCHS* 5': *Sal*#2:
petD8 3' gene from pCGP2116

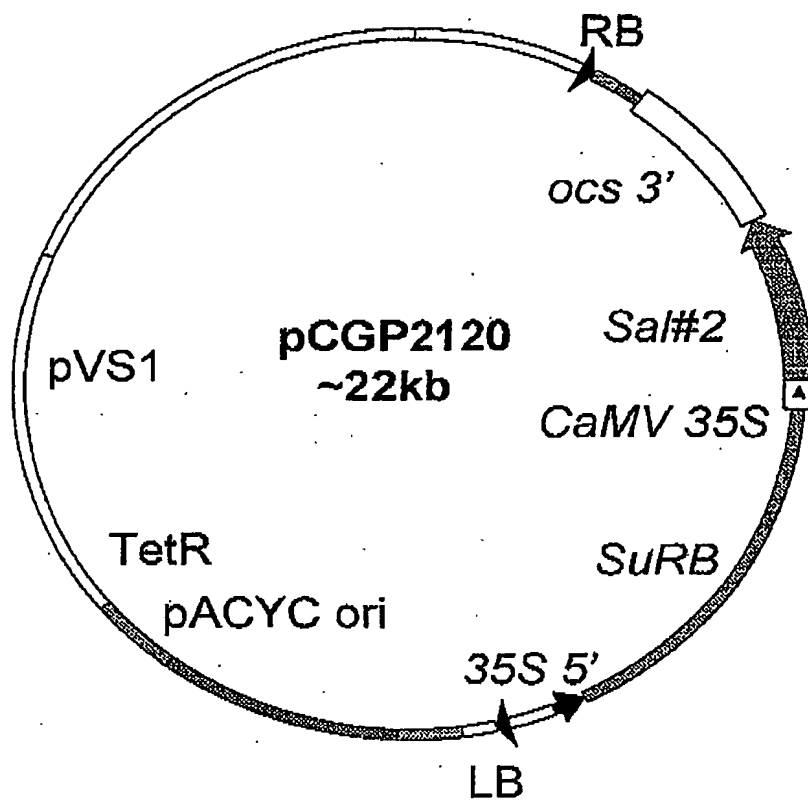
Figure 33



Replicon: ~18.4kb Asp718 (blunted)
pCGP1988 vector

Insert: ~3.6kb NotI (blunted)/ EcoRV
fragment containing *AmCHS* 5':
Sal#47: *petD8* 3' gene from
pCGP2117

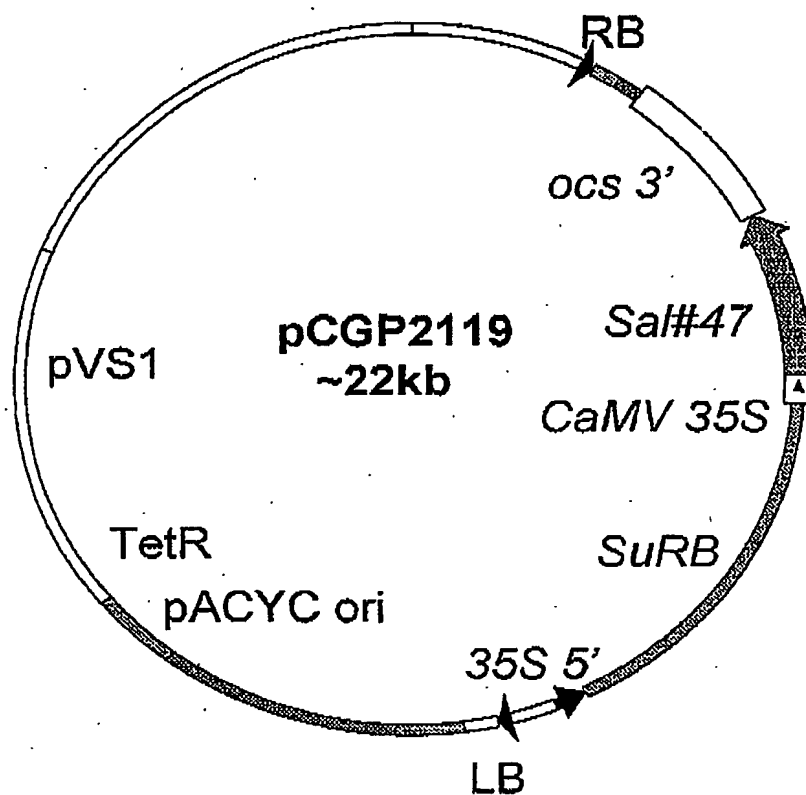
Figure 34



Replicon: ~18.4kb Asp718 (blunted)
pCGP1988 vector

Insert: ~3.6kb (XhoI/XbaI) blunted
fragment containing *CaMV* 35S:
Sal#2: *ocs* 3' gene from pCGP2112

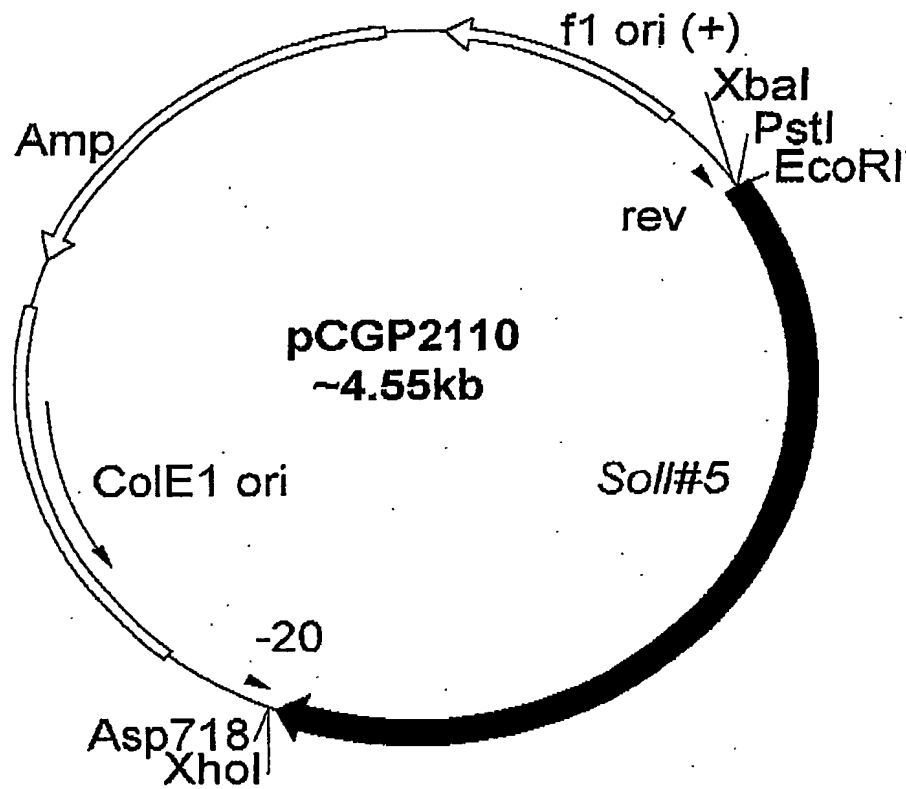
Figure 35



Replicon: ~18.4kb Asp718 (blunted)
pCGP1988 vector

Insert: ~3.6kb (XhoI/XbaI) blunted
fragment containing *CaMV 35S*: *SalI*#47:
ocs 3' gene from pCGP2111

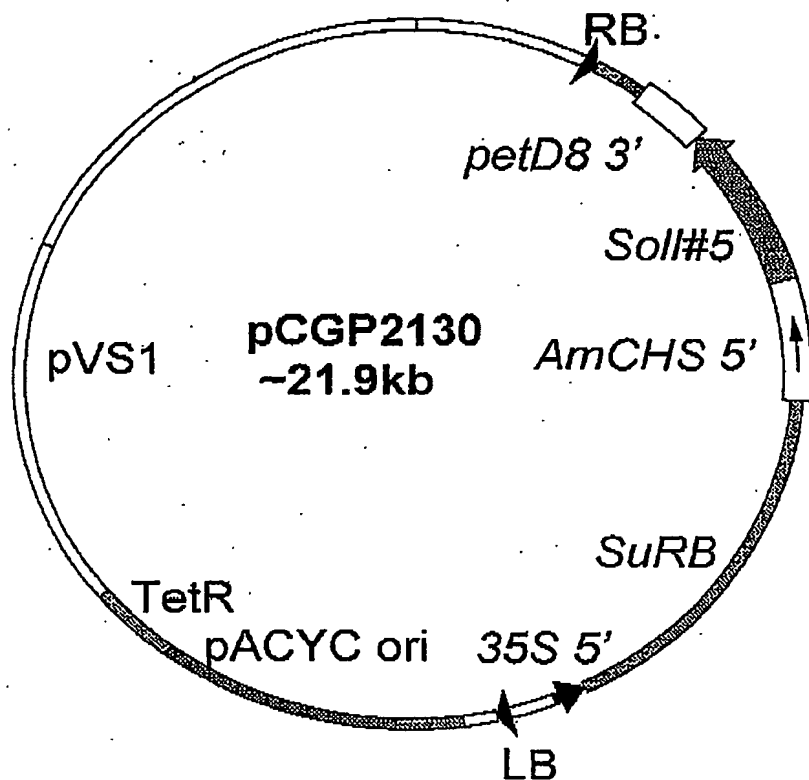
Figure 36



Replicon: pBluescript SK II (+) vector
2.95kb

Insert: ~1.7kb *F3'5'H SolI#5* cDNA
from *Sollya* spp.

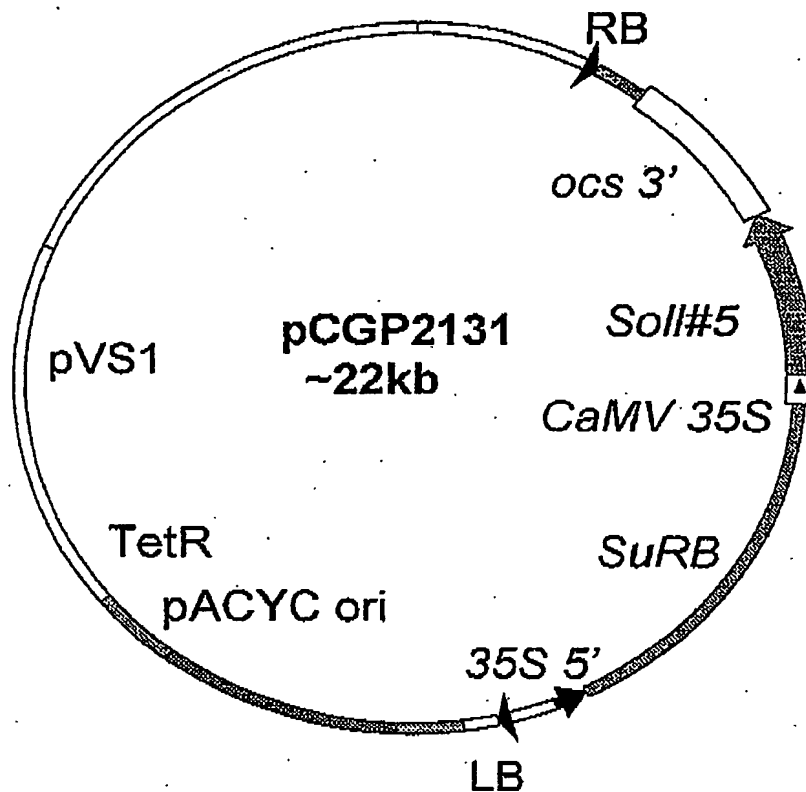
Figure 37



Replicon: ~18.4kb *Asp718* (blunted)
pCGP1988 vector

Insert: ~3.5kb *NotI* (blunted)/ *EcoRV*
fragment containing *AmCHS* 5': *SolI*#5:
petD8 3' gene from pCGP2128

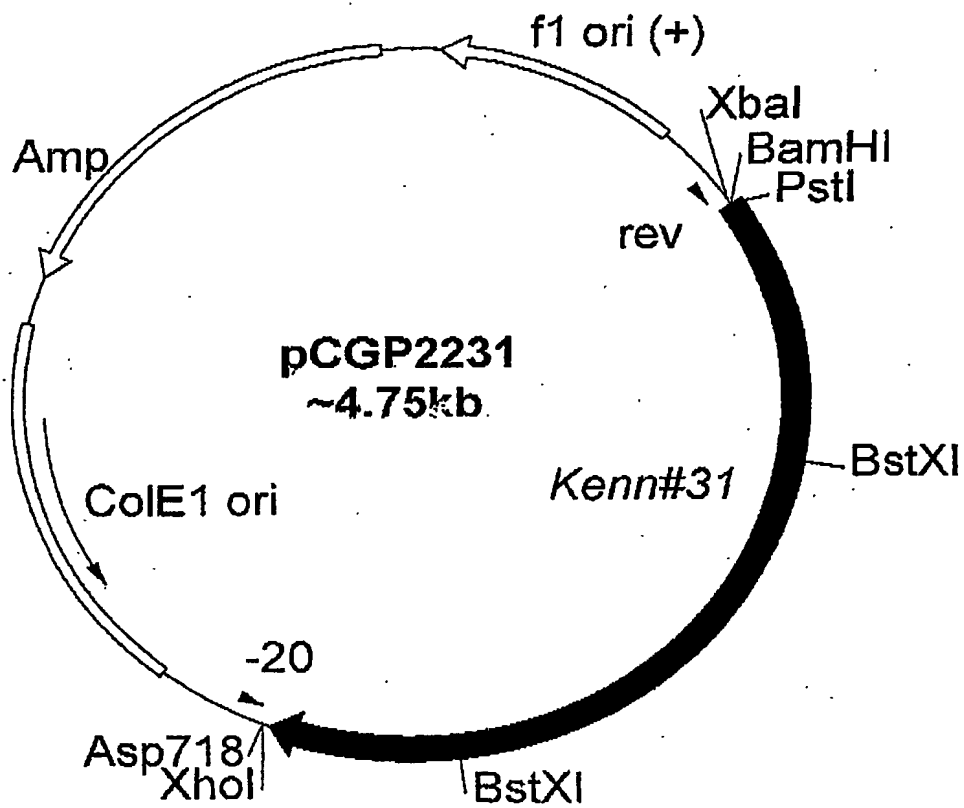
Figure 38



Replicon: ~18.4kb Asp718 (blunted)
pCGP1988 vector

Insert: ~3.6kb (Asp718/XbaI) blunted
fragment containing *CaMV* 35S;
Soll#5: *ocs* 3' gene from pCGP2129

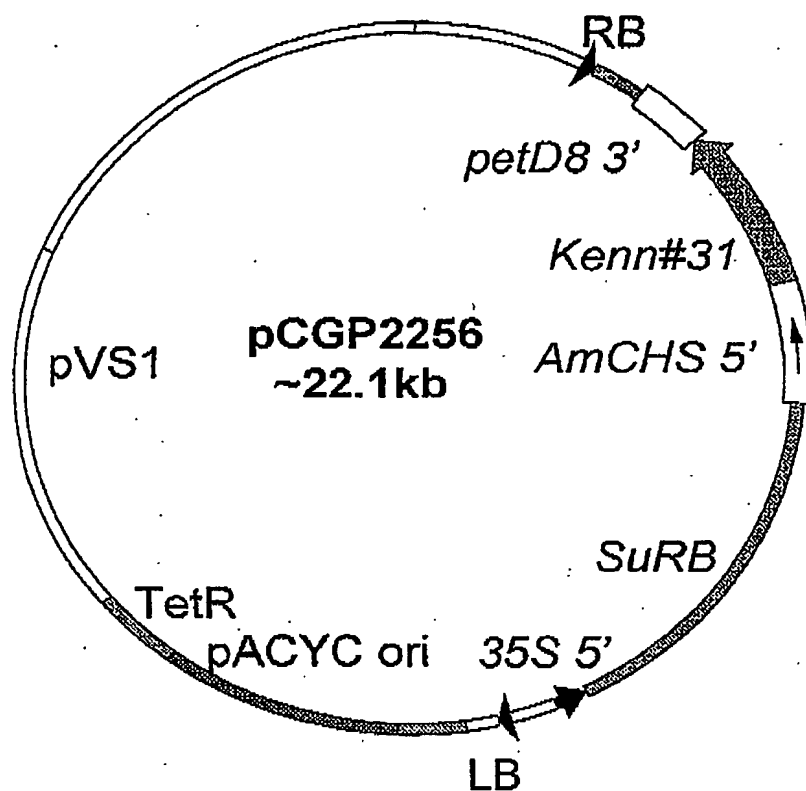
Figure 39



Replicon: pBluescript SK II (+) vector 2.95kb

Insert: ~1.8kb *F3'5'H Kenn#31* cDNA from *Kennedia spp.*

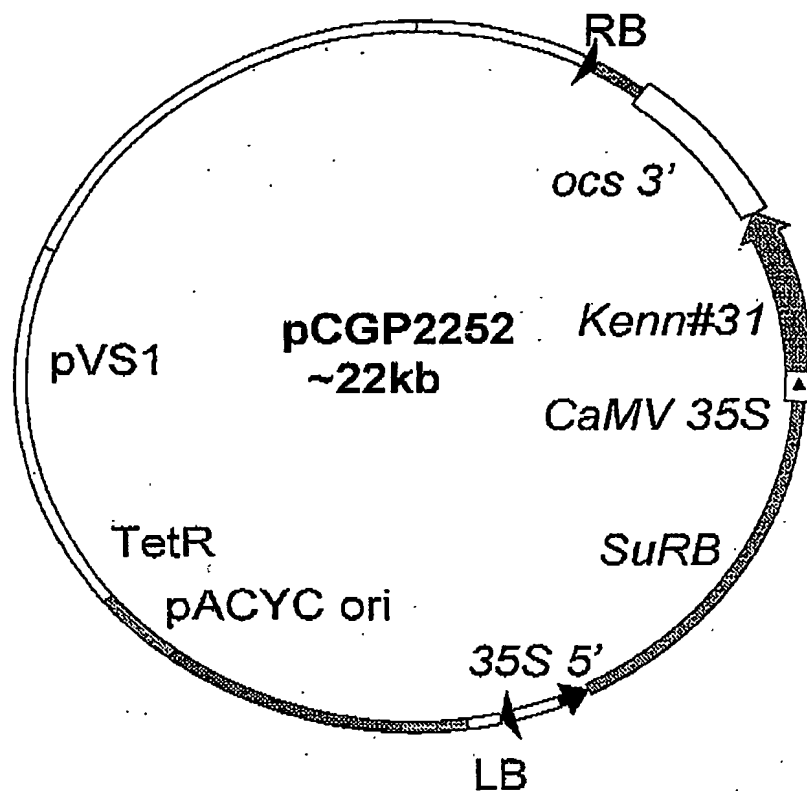
Figure 40



Replicon: ~18.4kb *Asp718* (blunted)
pCGP1988 vector

Insert: ~3.7kb (*NotI*/ *EcoRI*) blunted
fragment containing *AmCHS* 5':
Kenn#31: *petD8* 3' gene from
pCGP2242

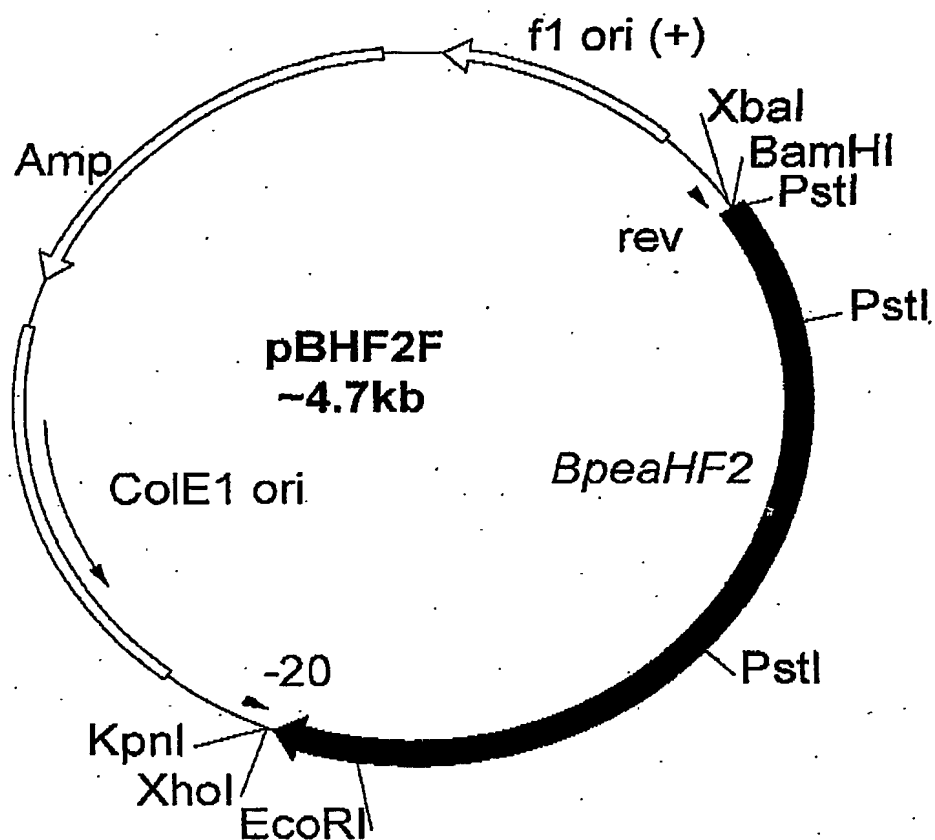
Figure 41



Replicon: ~18.4kb Asp718 (blunted)
pCGP1988 vector

Insert: ~3.6kb (XhoI/NotI) blunted fragment
containing *CaMV 35S: Kenn#31: ocs 3'* gene
from pCGP2236

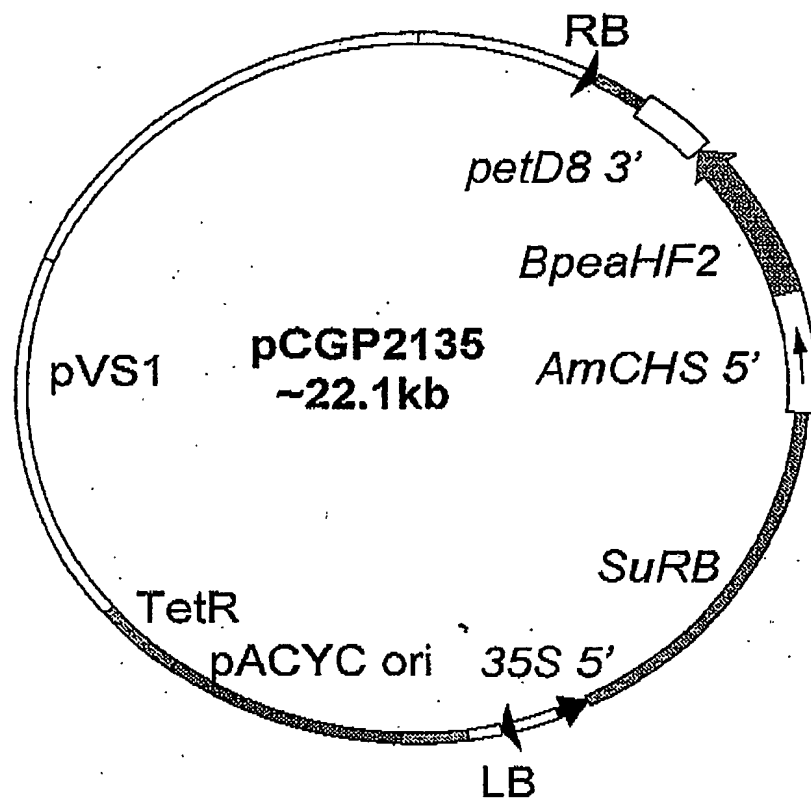
Figure 42



Replicon: pBHF2 BamHI/PstI 4.5kb vector + partial *BpeaHF2* insert (backbone = pBluescript SK II (+) vector)

Insert: ~200bp BamHI/PstI fragment from PCR using pBHF2 as template (5' fragment of butterfly pea *F3'5'H* cDNA (*BpeaHF2*) from *Clitoria ternatea* including putative initiating codon (ATG))

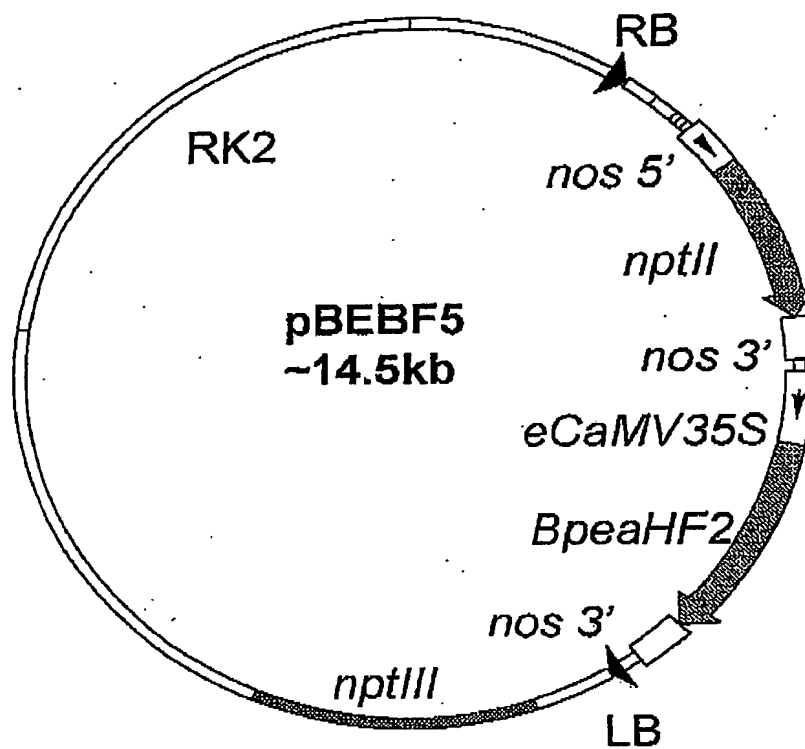
Figure 43



Replicon: ~18.4kb Asp718 (blunted)
pCGP1988 vector

Insert: ~3.6kb NotI (blunted)/ EcoRV
fragment containing *AmCHS* 5': *BpeaHF2*:
petD8 3' gene from pCGP2133

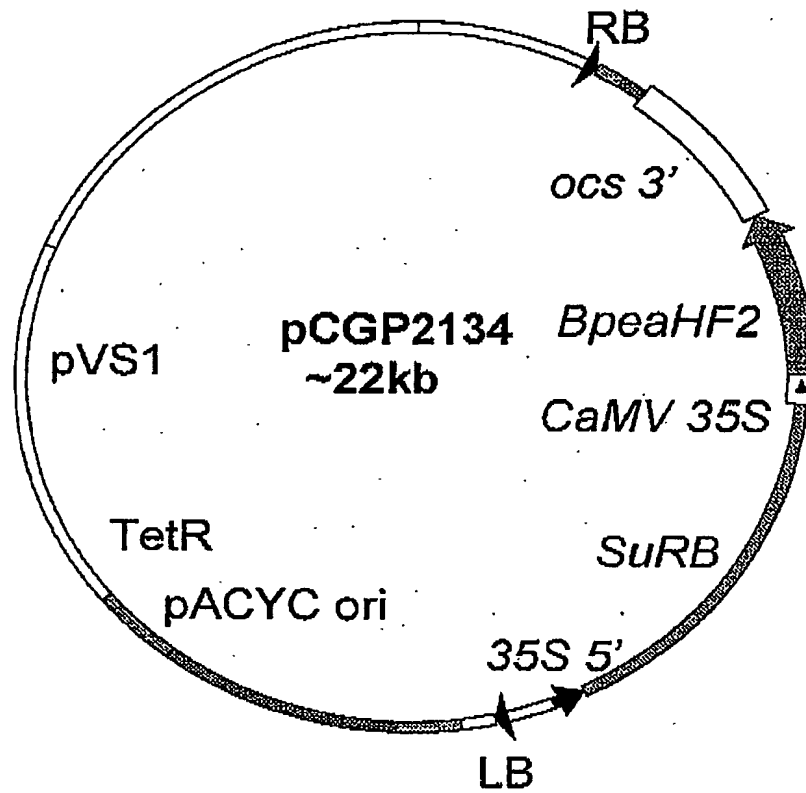
Figure 44



Replicon: ~12.8kb pBE2113-GUSs BamHI/Sall (pBI121 backbone)

Insert: ~1.7kb BamHI/XhoI fragment containing *Clitoria F3'5'H BpeaHF2* cDNA clone from pBHF2F

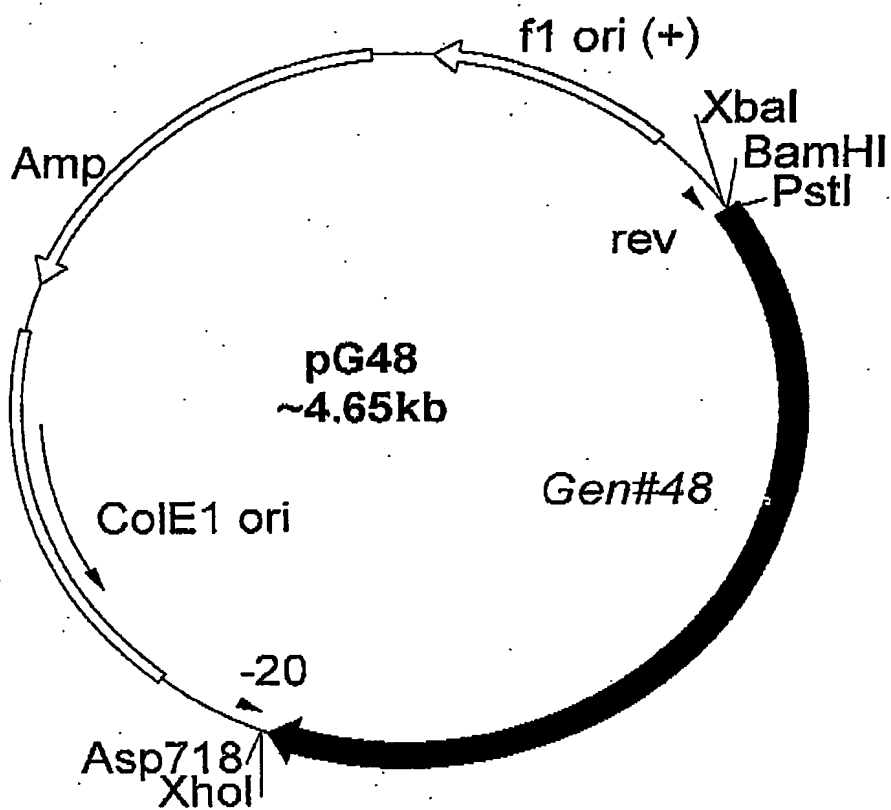
Figure 45



Replicon: ~18.4kb Asp718 (blunted)
pCGP1988 vector

Insert: ~3.6kb (XhoI/XbaI) blunted
fragment containing CaMV 35S:
BpeaHF2: ocs 3' gene from pCGP2132

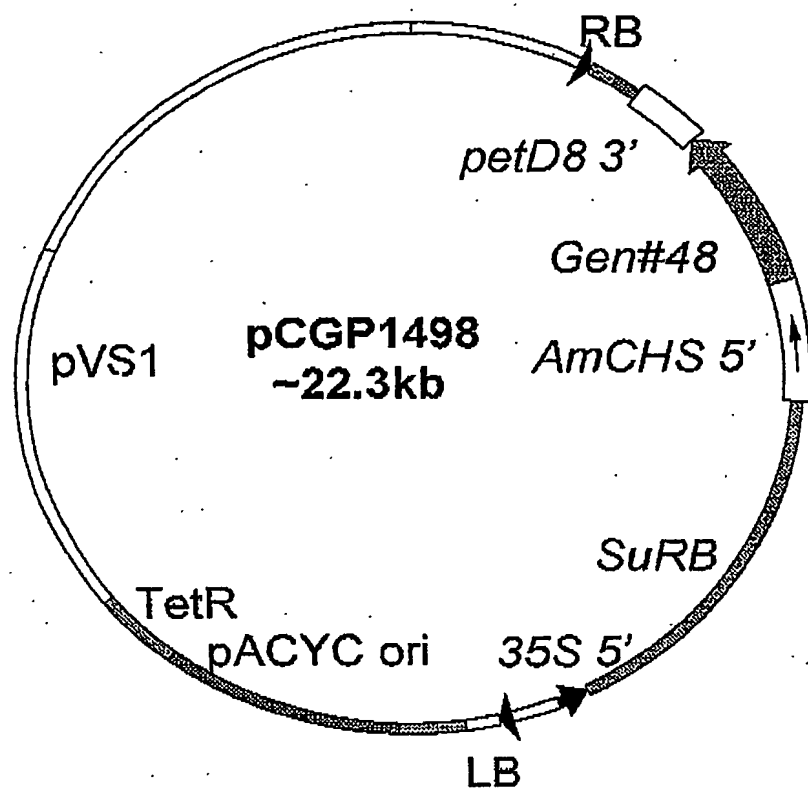
Figure 46



Replicon: pBluescript SK II (+) vector 2.95kb

Insert: ~1.7kb F3'5'H Gen#48 cDNA from *Gentiana triflora*

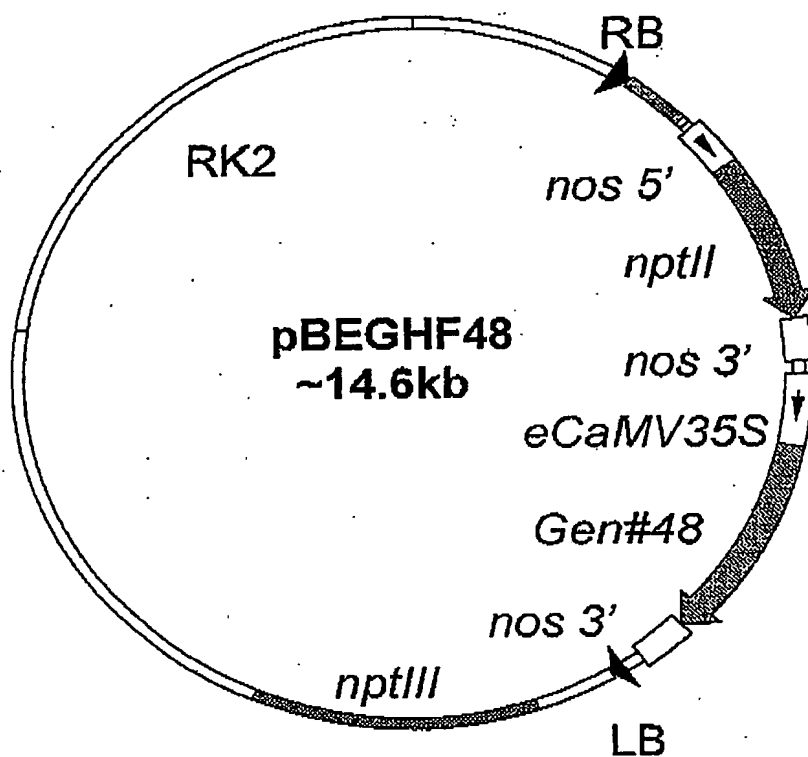
Figure 47



Replicon: ~18.7kb Asp718 (blunted)
pWTT2132 vector

Insert: ~3.6kb NotI (blunted)/ EcoRV
fragment containing *AmCHS* 5': *Gen#48*:
petD8 3' gene from pCGP1496

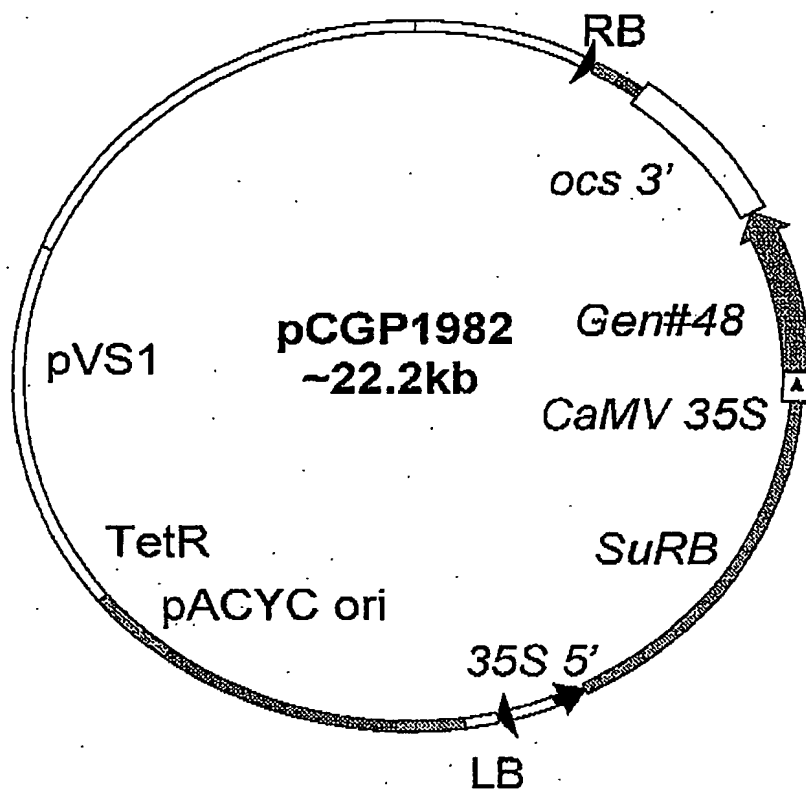
Figure 48



Replicon: ~12.8kb pBE2113-GUSs BamHI/Sall
(pBI121 backbone)

Insert: ~1.8kb BamHI/XhoI fragment containing
gentian F3'5'H (Genn#48) cDNA clone from
pG48

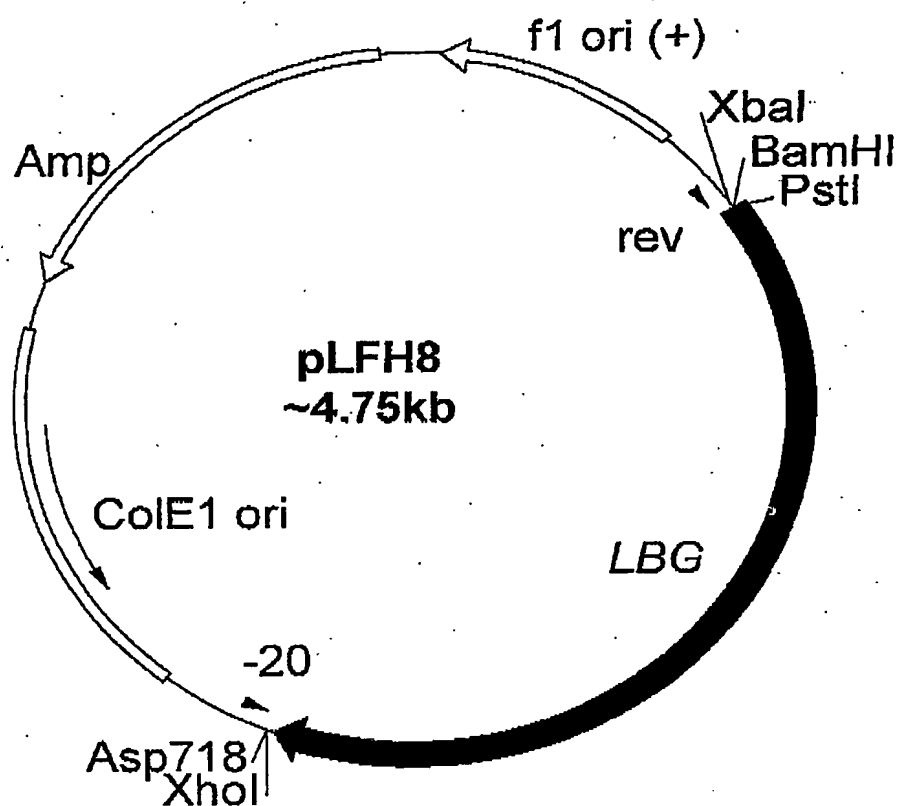
Figure 49



Replicon: ~18.7kb Asp718 (blunted)
pWTT2132 vector

Insert: ~3.6kb (XhoI/XbaI) blunted fragment
containing *CaMV 35S*: *Gen#48*: *ocs 3'* gene
from pCGP1981

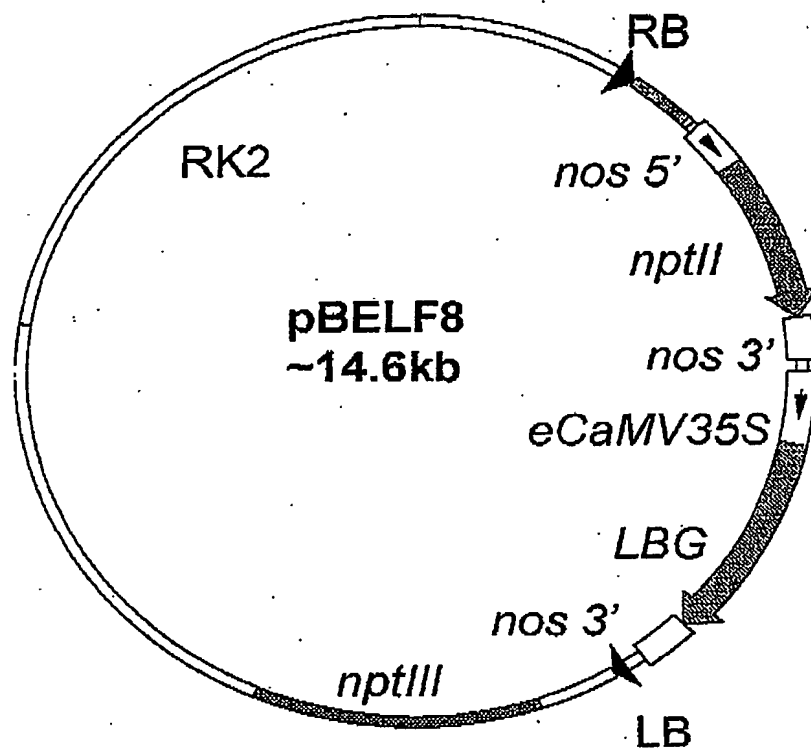
Figure 50



Replicon: pBluescript SK II (+) vector 2.95kb

Insert: ~1.8kb *lavender F3'5'H LBG* cDNA
from *Lavendula nil*

Figure 51



Replicon: ~12.8kb pBE2113-GUSs BamHI/Sall (pBI121 backbone)

Insert: ~1.8kb BamHI/XhoI fragment containing *lavender F3'5'H* (LBG) cDNA clone from pLHF8

Figure 52